A Clinical Lecture

ON THE

PATHOLOGY AND TREATMENT OF LARYNGISMUS, TETANY, AND CONVULSIONS,

ILLUSTRATED BY CASES OF THESE DISORDERS IN CHILDHOOD, AND ALSO BY A CASE OF THE TETANY OF ADULT LIFE.

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(Concluded from page 921.)

THE next point of importance, and one of the first moment to us as physicians, is the cause. What gives rise to tetany and the allied conditions, laryngismus and convulsions? Let us take the case of adults first. Trousseau styled the affection the rheumatic contraction of nursing women. This arose from the fact that the first few cases which he saw were all in women who were suckling; and he deemed the affection rheumatic probably because of the pain and swelling of the extremities, really due to the pressure of muscular cramps, and because exposure to cold appeared to be the exciting cause. Subsequent experience led him to modify this view, and he acknowledged many conditions as predisposing. Another antecedent supposed to be almost invariable was diarrhœa. In Trousseau's cases diarrhœa was almost invariably present. He gives one case, however, in which the bowels were obstinately constipated. In ten cases of adults I have found recorded elsewhere, diarrhœa was noted in two only, as absent in four, and in the remaining four not noted. Then another point. In all nineteen cases together—Trousseau's and others—twelve were in women. Of these twelve, seven were suckling, two were pregnant, and one had had several miscarriages recently. Four of these had diarrhœa, and two menstruated while suckling. Tetany comes on in adults also as a sequel to acute specific fevers, especially in cholera and typhoid fever, in which diarrhœa is a prominent symptom. In the vast majority of cases, then, if not in all, tetany supervenes in patients whose nutrition is impaired by drain or flux—that of lactation or pregnancy, or diarrhœa or hæmorrhage.

Let us take now the case of children, and see whether the conditions which favour the occurrence of the disorder in them are in any degree similar. In the first place, the affection in nearly every instance occurs in children under three years of age—the period of rickets, the period of dentition. In the second, in every instance which I have seen the child has also had well-marked rickets. In every one of the fourteen cases collected by Dr. Abercrombie there was marked rickets. Further, in every instance which I have seen the tetany was associated with the first spasmodic disorder—viz., laryngismus. In all Dr. Abercrombie's cases there was likewise accompanying laryngismus. Now, according to my observations, laryngismus is invariably associated with rickets.[1] Again, the third spasmodic disorder is associated with rickets—viz., general convulsions[2]; and a considerable proportion of these cases of tetany and laryngismus suffer from convulsions. Therefore in children spasmodic disorder in these three forms—viz., laryngismus, carpo-pedal contractions or tetany, and general eclampsia—are essentially associated with the rachitic condition. This is, indeed, the key to the subject. The constitutional state in rickets in children, fruitful of tetany and all kinds of convulsion, is closely analogous to the constitutional state in which tetany is apt to occur in adults. Rickets, remember, is not mere defective nutrition of bone, but defective nutrition of *all* structures—of muscle and nerve, as well as of bone. It arises largely on a diet of starchy food—i.e., not by the evil effects of starch and sugar, but because the diet is deficient in animal albuminates and animal fats. It arises frequently, too, where nutriment is drained off by frequent and long-continued vomiting and diarrhœa. Sometimes, again, in a condition closely allied to it, as the result of the cachexia of congenital syphilis. In the child, then, as in the adult, the constitutional state which predisposes to spasmodic disorder is subnormal nutrition. This state is, however, brought about in a different way in the two cases. Children get into the state which favours laryngismus, tetany, or convulsions when the nutrient milk is not given, or its equivalent of animal albuminates and fat. The nursing mothers get into the state which produces tetany from loss of the same nutriment in the milk they yield. In the case of children the fault of insufficient supply is constantly aggravated by the drain of diarrhœa or vomiting. In the case of adults the fault of drain by flux of milk or diarrhœa is frequently aggravated by insufficient supply. The condition of nervous system which renders it so unstable, this hyper-excitability, would appear to be due to defective nutrition of motor cells. Their protoplasm is as ill-nourished as we know the nitrogenous element of muscle to be in like cases. Look at the myoidema of wasting diseases. Muscle is hyper-excitable in this condition; nerve centre is hyper-excitable likewise. There is no affection of the governing cerebrum, for there is no affection of the sensorium, but an undue excitability of the motor ganglia of the cord; probably no permanent organic change.[3] This is perhaps not all. There is an immediate exciting cause; the reflex irritation of diarrhœa, or teething, or exposure to cold, or indigestible food. But the constitutional defect is the essential antecedent, the predisposing cause underlying all, rendering the nervous organism morbidly sensitive to slight irritation. As in the strychnia-poisoned frog, tetanic symptoms may not be developed if it remains quiescent, but the stimulus of a shake or jar brings on a convulsive seizure. Now, gentlemen, I lay stress upon these points of etiology and pathology, because they bear so strongly upon treatment, and this is of vast importance. The disease, indeed, involves little risk to life in the case of adults. I know of two cases only on record in which the disease proved fatal.[4] With children, however, the case is otherwise. They do not die of the tetany, but they do die of laryngismus and convulsions, sometimes of concurrent exhausting diarrhœa, or bronchitis, or catarrhal croup. The majority get well, but now and again death occurs. So long as the condition of excessive irritability of the motor nervous system evidenced by the carpo-pedal contraction and attacks of laryngismus remains, so long is the child in danger from spasm of the glottis, fatally prolonged, or the supervention of general convulsions.

Treatment.—In the olden time treatment was chiefly divided towards relieving a supposed congestion of the brain and cord. Trousseau relied upon bleeding for this purpose in tetany, and claims great success for it. He also gave quinine, opium, belladonna, and chloroform inhalations. Yet his claim to success seems hardly borne out by the evidence. In the case of one woman who died, bleeding aggravated the symptoms, the muscles of respiration became affected, and asphyxia appeared imminent. Twelve leeches were then applied behind the ears, but before they had fairly taken the patient succumbed. In the case of a man also who had tetany in the most severe form, bleeding from the arm, repeated several times, was followed on every occasion by increased contractions involving the muscles of respiration and threatening asphyxia. Cupping along the spine, however, appeared to give decided relief, and the patient recovered, possibly in spite of the treatment rather than in consequence of it. But, indeed, bleeding, in persons already exhausted by drain or deficient nutriment as these patients are, would seem to be the very worst therapeutic measure possible. We know, moreover, that loss of blood in quantity tends to produce the convulsive state. Animals bled to death die convulsed; animals starved to death sometimes die convulsed. In the case of these poor debilitated, rickety children, bloodletting, even in the mild form of

[1] Dr. Gee found this fault—viz., rickets—in 48 out of 50.

[2] Dr. Gee noted general convulsions in 19 out of 50 cases of laryngismus.

[3] In a fatal case of mine (examined by Dr. Abercrombie) the brain and membranes were healthy, the medulla and cord seemed rather firmer than usual, and the grey matter, if anything, too pale. No other change in any organ. Langhans (quoted by Abercrombie), in a fatal case in a man aged forty, found some changes, especially in the anterior white commissure of the cervical enlargement—viz., thickening of the tunica adventitia of small arteries and veins, due to the presence of lymphoid cells in the reticulated stroma. (Is this the result of congestion set up by convulsion?) The affection is transient; it is not *a priori* likely that it depends on permanent organic changes.

[4] Trousseau's case, and that of Langhans noted by Abercrombie.

leeching or cupping, is out of the question. The practice is based upon a pathological error.[5] The condition of the nerve centres is really one of anæmia already, not of congestion.

The objects to be sought in the treatment of tetanoid laryngismal convulsive disorder of childhood are threefold—(1) to relieve dangerous convulsive seizures when they occur, (2) to ward off these attacks from recurring, and (3) to remove the constitutional rickety state which predisposes to them. For the first purpose:—In laryngismus, a dash of cold water in the face, a hot sponge to the larynx, a finger in the throat to induce the act of vomiting, are approved methods to unlock the dangerous spasms. In general convulsions, the vapour of chloroform may be given between the seizures, or ten grains of chloral and twenty grains of bromide may be given by injections into the rectum, or from one to three grains of chloral in solution injected hypodermically in an urgent case. The latter I have tried once only, but with an excellent effect. It is often impossible to give medicine by the mouth, and a hypodermic injection acts more quickly and more certainly than one into the rectum. For the second purpose (i.e., to ward off attacks) give chloral and bromide. Each good, but best both together. They have a marvellous power, chloral especially, in averting tetany and laryngismus, and probably in preventing general convulsions. They must be given in fairly full doses and at regular intervals of sufficient frequency, so that the system is kept constantly under their influence. For a child of six months, half a grain of chloral to one or two grains with three of bromide every four hours. For one a year old, from one to three grains of chloral with five grains of bromide every four or six hours, and so on in proportion. Children bear chloral well. Dr. Wilks gave to a boy three years old with tetany ten grains of chloral three times a day with the best effect. Bouchut gave thirty grains to children of two to five years, sixty grains to children of seven years, to produce anæsthesia for operation. I should not hesitate to give much larger doses than those I have indicated should urgent symptoms arise. In one case of severe tetany in a boy of two years, in which chloral (two grains) and bromide (five grains) given every four hours failed to produce improvement, I gave one-twelfth to one-fifth of a grain of Calabar bean with good effect. With larger experience I should try much larger doses of chloral in a similar case before resorting to Calabar bean. Let me give, however, this warning with regard to the free use of bromide and chloral. Bromide in five-grain doses every four hours for some days occasionally produces severe pustular rupial eruption. Chloral at most induces drowsiness, therefore rather push chloral than bromide in case of necessity. This treatment by sedatives may have to be continued in greater or less degree for weeks and weeks, until the tendency to spasm permanently declines. Thus gaining time by keeping the nervous system in safe quiescence, you proceed to treat the rickety state, the evil condition which underlies and is the prime source of all. For this purpose give milk, cream, or raw meat if milk cannot be borne, with the best kinds of infants' food, or entire wheat flour (rich in phosphates and nitrogenous matter); later, cod-liver oil and syrup of lacto-phosphate of lime or of lime and iron. Another useful adjunct in increasing nutrition and aid in increasing blood flow to the anæmic nerve centres in these cases is brandy, half a drachm to a drachm, given in half an ounce to an ounce of food every four or six hours. It has also another advantage: it acts on children chiefly as a sedative and narcotic, and produces no excitement. And I must enforce the paramount importance of this full nutrient treatment, because there is a common and grave error pervading practice in these cases—viz., that of adopting a spare and lowering diet, such as barley-water, weak broths, and arrowroot. Such had been the medical advice given in the second case which I related: a most pernicious plan, against which I wish to protest as strongly as possible—the remnant of the old idea that the morbid condition at the root of the disease was one of plethora and active congestion, instead of debility and anæmia. Moreover, many confound a full nutritious diet with an indigestible irritating diet. Raw meat, for instance, is not indigestible; it is most digestible as well as most nutritious—i.e., the soft pulp scraped free from the fibre; and so with cream. A spare, thin diet, such as veal broth, barley-water, and arrowroot, is no more digestible, and infinitely less nutritious. Let me repeat, then, that the food should be as digestible and nutritious as possible, with a high proportion of animal albuminates and fats. Then, again, this evil of low diet in these cases is constantly heightened by the over-use of strong purgatives and depressant drugs: aiding artificially the very condition of draining off of nutriment and deficient vitality we know to be the prime fault of the disorder. If the immediate exciting cause of convulsion be the irritation of undigested food, a dose of castor oil should of course be given at once; or if there be obstinate constipation, sufficient doses of some simple laxative, such as magnesia, may be given to relieve it, or a single dose of calomel may be useful on occasion. But the free and frequent use of strong purgatives does nothing but harm. Lastly, if diarrhœa be present—and you will remember that it is an almost constant accompaniment of the rickety and tetanoid state—it must be controlled. For it is injurious in two ways: (1) by draining off nutriment from the alimentary canal before there is time for it to be absorbed, and (2) by the reflex irritation it sets up. For the relief of diarrhœa bismuth is one of the best remedies. It should be given in the form of the insoluble trisnitrate, and in full doses; the doses usually given are far too small to be really effective: four or five grains every four hours to a child six months old, and more in proportion to age, and with it a quarter of a drop of laudanum, or the castor-oil mixture of the Hospital Pharmacopœia, one, two, or three drachms every four hours, with a quarter to one drop of laudanum according to age; or, if there be sickness with the diarrhœa, from half to one grain of grey powder, with from a quarter to half a grain of Dover's powder, according to age, may be given every four hours; or a mixture of chalk and catechu with hæmatoxylum and small doses of tincture of opium, if the alvine discharges are watery and profuse. But astringents are less valuable than drugs like bismuth, chalk, and the sedative opium.

[5] Experiments show that convulsive seizures and spasm (apart from organic disease, such as meningitis, tumour, &c., or poisoning) are produced by two causes chiefly: (1) carbon products in blood—venosity; (2) anæmia of nerve centres. Kussmaul and Tenner (see Stirling and Landois, vol. ii., p. 901) found the spasm centre in the medulla could be excited by (*a*) suddenly producing a highly venous state of blood, either by asphyxia or by compressing the veins coming from the head, or (*b*) by sudden anæmia of the medulla, either in consequence of hæmorrhage or ligature of the carotids and subclavians. In all these cases the stimulation of the centre is due to the sudden interruption of the normal interchange of gases.

Lectures
ON
INJURIES OF NERVES.

Delivered at the Royal College of Surgeons,

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LECTURE II.

TROPHIC CHANGES CAUSED BY NERVE INJURY.

MR. PRESIDENT AND GENTLEMEN,—In addition to the partial or entire loss of sensation and motion in the parts supplied by the divided nerve, the various tissues are liable to undergo changes which are chiefly of a degenerative nature, though sometimes combined with inflammatory conditions. The extent to which these changes are dependent on a want of nerve force will be left for future consideration, and for the present it will be sufficient to study the morbid processes themselves. The first authors to draw attention to the altered nutrition of the parts supplied by a divided nerve were Hilton in his lectures on Rest and Pain (p. 199), and Paget in the *Medical Times and Gazette* of March, 1864; but since then they have widely occupied the interest of surgeons, and it would be impossible to allude here to all the writers on this subject, amongst whom the names of Charcot, Weir Mitchell, and Hutchinson occupy the foremost places. It must first of all be premised that many of the changes to be described, which will be known once for all as "trophic changes," are not by any means the invariable sequel of nerve section, but rather that, instead of such conditions being the rule, some of them are the exception.

The skin.—The condition of the skin most characteristic of nerve lesion is a smooth shiny-red appearance, generally known by the name of "glossy skin." The description of Paget in the *Medical Times and Gazette*, already alluded

to, yet remains the most graphic. He says: "In well-marked cases the fingers which are affected (for this appearance may be confined to one or two of them) are usually tapering, smooth, hairless, almost void of wrinkles, glossy, pink or ruddy, or blotched as if with permanent chilblains. They are commonly also very painful, especially on motion, and pain often extends from them up the arm. In most of the cases this condition of the fingers is attended with very distinct neuralgia, both in them and in the whole arm; and its relation to disturbances of the nervous condition of the part is, moreover, indicated by its occasional occurrence in cases where neuralgia continues after an attack of shingles affecting the arm. In two such cases I have seen this same condition of the fingers well marked and only very slowly subsiding, and seeming unaffected by the ordinary treatment of neuralgia."

Weir Mitchell,[1] while agreeing with Paget's description, also remarks that the epithelium is partially lost, and that the cutis is exposed in places, while the subcuticular tissues are wasted. The same author notes that "where a single nerve, as the ulnar, had been attacked, the described state of the skin was seen only in its ultimate distribution; but in other instances of more extensive nerve injury the central palm suffered, or a single finger, or the pulps of all of them. In others the palm or fingers were dotted with islets of thin, red, and glossy skin. The dorsum of the hand, as a rule, was in that member the part least subject to the alteration, while the dorsum of the foot was in that region the part most liable to suffer..... The state of the skin to which I refer is never present without burning pain, and commonly the earlier presence of this form of neuralgia enabled us to predict the coming of the skin disease. In no case did it become visible short of two weeks, but usually it preceded the healing of the wound, and not rarely was to be traced to an outbreak of inflammation involving the wound. The duration of the malady varied from a few weeks to years, but in all the cases I have been able to follow it has either been cured or gradually disappeared."

The foregoing descriptions mainly agree with my own observations. Weir Mitchell's statement, however, that this glossy skin is "never present without burning pain," admits, I think, of some doubt, and I question if the same condition is not sometimes permanent, despite his opinion to the contrary. Both of these points are illustrated by the following case.

W. H——, aged forty-two, divided his median nerve two inches above the wrist in August, 1870. On July 19th, 1882, I found the skin over the back and front of the two last phalanges of the index and middle fingers red, glazed, and tightly stretched, so that it could not be pinched up in the least; there was no appearance of any papillæ or of hair; the fingers as a whole were very thin and tapering. He had no pain of any kind except in very cold weather, when he said the affected parts caused a tingling sensation of "pins-and-needles." In this man, then, the glossy skin had existed twelve years, and as the patient assured me it showed no sign of improvement, we may fairly conclude that the condition was likely to remain permanent. In another case of an old man who had divided his ulnar nerve ten years previously, the skin over the little finger and part of the ulnar side of the palm remained glossy, yet without pain, except, as in the previous case, in cold weather.

In addition to the glossy condition just described, the skin is liable to various forms of eruptions, which may or may not occur coincidently with the above affection. Of these, undoubtedly the most common form is a vesicular rash, sometimes presenting an appearance very similar to herpes, but frequently occurring as large bullæ, such as are seen in pemphigus. As in the case of glossy skin, it is chiefly the parts at the extreme periphery of the nerve which are affected, and these in a most irregular manner. For instance, after division of the median nerve it is common to find any one of the three digits supplied by it the seat of a bulla, while the others are healthy. The earliest date after nerve section at which I have found the appearance of vesicles recorded is the second day. The case is detailed by Mr. I'Anson in the *Medical Times and Gazette* for Dec. 30th, 1871. Weir Mitchell saw the thumb rapidly covered on the fourth day by a large bulla, and "looking as if blistered." These eruptions are very common for some months after the primary lesion, but in cases where the section has occurred some years previously I have not met with them, nor do I find mention of them by other writers under similar circumstances.

In addition to the vesicular eruptions, Weir Mitchell describes an eczematous condition of the skin which he thinks is more frequently found than true herpes; and, indeed, it often becomes very difficult to give a name to a rash which is not quite like any that occurs under other circumstances. In some cases the inflammation of the skin is more intense, and results in the production of abscesses or ulcers. The former, which have been particularly described by Hutchinson under the name of "subcuticular whitlow," are most common, as their name implies, at the tips of the fingers; the pus in them is only covered by the upper layers of the skin, and the nail is sometimes destroyed; the course of the whole inflammation is, however, painless. The ulcers which are found at the tips of the fingers are frequently the result of a subcuticular whitlow, which has burst, and thus exposed the delicate papillæ, which, being free of all tactile sense, are constantly liable to irritation by surrounding objects. The ulcers thus formed sometimes proceed to the destruction of a considerable amount of tissue, and I have seen one case in which nearly the entire tip of the index finger and part of the middle were so eroded within five months of the accident. It must nevertheless be borne in mind that many of the ulcers which follow nerve section owe their primary origin to some traumatism, and more especially to the effect of heat and cold acting on an anæsthetic part. In one case that came under my notice the man had burnt the end of his finger with a lighted pipe; in another, by carrying very hot plates; in a third, by touching one of the bars of a fireplace; and such instances could be indefinitely multiplied. In many patients, as pointed out by various authors, the ulcers heal with great readiness; but such is not always the case, more especially, I am inclined to think, where no traumatic origin was present as an exciting cause. In the case above mentioned of destruction of the tip of the index, the ulcer, after healing, again broke down, while the hand was completely protected from injury; and in another the ulceration was still present ten months after the division of the nerve, and slow to heal. In a few rare cases a whole finger or fingers become completely gangrenous. Hilton describes such a case in his work on "Rest and Pain," in which the two last phalanges of the fifth and the tip of the fourth finger were completely separated by a line of demarcation. The cause of this was an exostosis pressing on the ulnar nerve in the subclavian triangle and also causing occlusion of the subclavian artery. There can be no doubt that this plugging of the vessel would act as a predisposing cause, but, as Hilton justly points out, the whole of the hand was subjected to the same influence, though only those fingers supplied by the ulnar nerve suffered. A less equivocal case is that recorded by Mr. I'Anson, already alluded to. Here the median nerve was divided at the wrist in a man aged twenty-four on June 8th. Two days later vesicles and black patches appeared on the fingers, but improved under galvanism. On Aug. 11th bullæ again appeared, and were followed by gangrene of the whole index finger.

In the following case gangrene of a part of the hand followed on division of the ulnar nerve.[2] On Nov. 29th, 1881, N. P——, aged forty-seven, received a severe lacerated wound from a circular saw on the inner side of the forearm, dividing, together with other structures, the ulnar artery and nerve. The artery was tied, and the wound dressed with carbolised oil. The wound healed by December 24th. The patient was then discharged as cured, but returned on January 6th, 1882, with gangrene of the ulnar side of the hand extending into the little finger. The whole hand was œdematous. Finally, a slough about half an inch deep came away and the gangrene ceased to extend.

The nails and hair.—The nails and hair, as might be expected, share in the changes affecting the skin. While speaking of subcuticular whitlow, I have mentioned that the nail of the affected finger sometimes perishes, but the nails occasionally undergo other changes in shape and texture of a kind peculiar to nervous lesions. Judging from a considerable number of cases of such injuries that have come under my own notice, I should be inclined to consider characteristic changes in the nails as not very rare, although this opinion is unsupported by the almost complete absence of any mention of such diseased nails by other authors. Thus, of seven cases recorded by Hutchinson of divided

[1] Injuries of Nerves, p. 157.

[2] Root. New York Medical Record, 1882, p. 560.

nerves, in only one were the nails found to be "stumpy, broken, and uneven on the surface"; while other English surgeons have passed over the question in silence. Weir Mitchell, Morehouse, and Keen, however, in some patients noticed very considerable lesions. They say: "The alteration in the nail consists of a curve in its long axis, an extreme lateral arching, and sometimes a thickening of the cutis beneath its extremity. In other cases a change takes place which is quite peculiar, and which to us at least was new. The skin at that end of the nail next to the third finger-joint becomes retracted, leaving the sensitive matrix partly exposed. At the same time the upper line of union of skin and nail retreats into or under the latter part, and in place of a smooth edge is seen through the nail a ragged and notched border. The patient who presented these changes in the most striking form had also lateral arching of the nail, but no longitudinal curving. It was a case of most terrible suffering from a combination of burning pain in the hand and neuralgic pain in the forearm. No deformity of nails in tubercle at all approaches that which nerve wounds occasion. Indeed, we think it would be possible for one familiar with these cases to diagnose the existence of a nerve lesion from the form of these protuberant and oddly curved nails. When the nails of the toes have been attacked, and they are very rarely so, the curving is less marked; but a distressing ulceration is apt to occur at their angles, and to break out again and again, despite of every care and attention. In many cases of nerve wounds, where there is only ordinary neuralgia, and not glossy skin and causalgia, I have seen the nails clubbed in some places, and in others dry, scaly, cracked, and fragile. Occasionally they are very thin, so as to be tender—atrophied, in fact. ..... Even complete nerve section does not prevent lost nails from being re-formed."

In the above graphic description, however, the authors do not mention in what proportion of cases they observed such lesions, or whether they occurred as a rule in recent divisions or in those of later date. It has appeared to me that after nerve section there may be simply a diminution in the rapidity of growth of the nail, combined with a stunted and fibrous appearance, or else that changes of a more special nature such as those described above may be observed. Of eleven cases of old injury which I examined consecutively, in only one was there any stunted and fibrous appearance of the nails. The other ten patients exhibited no morbid changes whatever, and for the most part expressed their opinions that the nails of the one hand grew as rapidly as did those of the other. In ten consecutive cases of more recent nerve section, within a year of the accident eight patients showed no change in the nails, but in the two others the latter presented a very strange and characteristic appearance, in many respects resembling the description by Weir Mitchell.

The first patient was a boy aged fourteen, who had sustained a division of the median and ulnar nerves nearly a year previously. The nails of all the fingers were short, stumpy, and broken, excessively arched both longitudinally and transversely, with transverse furrows and ridges running across them, the latter being marked with a delicate longitudinal striation, giving them a "toothed" appearance. The nails were thick and not tender, and the surrounding skin was not retracted from their bases. The patient said that they had been in this condition ever since a few weeks after the accident; he thought they grew as rapidly as those on the opposite hand.

The second patient was a lad, aged seventeen, who had divided the median nerve five months previously, and in whom partial union had resulted, and was still progressing. The nails of *all* the fingers and thumb presented conditions very similar to those just described, except that the nails were very long—a condition, combined with their extreme curvature, which gave them a talon-like appearance. In this respect the thumb nail differed from its fellow, being short and only half grown; this was accounted for by the fact that the nail had been painlessly shed from this digit a month previously, and had not yet grown. The patient said that all the nails grew rapidly, and their appearance certainly warranted the statement.

These cases, and others that I have since seen, would tend to the belief that trophic changes in the nails appear soon after the nerve injury, as might be expected from the time at which similar lesions are found in other parts. Each patient had lost one nail entirely, a loss which may fairly be attributed to a more complete cutting off of trophic influences from this digit than from the others. In addition to the curvature, the most characteristic appearance was found in the peculiar striated or toothed condition of the transverse ridges, which was quite different to anything I had seen. In the last patient perhaps the most surprising fact was that, although it was quite certain that only the median nerve had been divided, the nails on the fourth and fifth fingers were quite as much affected as those of other digits. This peculiarity I have seen in other cases.

Changes in the hair growing in parts deprived of their nerve supply have appeared to me to be very common. In most of the cases I have examined, the hair, when any has been present, has appeared short, stumpy, and brittle. In some patients it was altogether absent, and, as has been remarked by Paget and Weir Mitchell, especially in cases of glossy skin. I have only once been able to obtain any portion of skin for microscopical examination, so as to see the exact conditions of the hair follicles, and found in it that the absence of the hair was accompanied by a corresponding degeneration of the follicle. In some rare exceptions, the growth of hair after nerve wounds has been very excessive. Weir Mitchell quotes several examples, but does not appear to have seen cases himself, and none have come under my own notice. Hamilton, however,[3] records a case in which a nerve appears to have been wounded in the operation of venesection, and in which symptoms of chronic neuritis ensued, the arm being subsequently covered by a rich growth of hair. The patient was a young lady.

The *connective tissues* deprived of their nerve supply usually undergo atrophy, and the palmar fascia sometimes shrinks and becomes indurated in a very noticeable manner. In some patients there is developed a great tendency to œdema, a condition which is probably due to section of some of the vaso-motor nerves. Weir Mitchell has described, in addition, cases where hypertrophy of the connective tissues was very marked, apparently the result of chronic œdema.

The *secretion of sweat* is in most cases more or less affected. By most of the patients I have seen in whom the injury was of some standing there was a tolerable certainty expressed that the parts deprived of their nerve supply were always dry. I examined some of them on very hot summer days, and in most of them the parts affected remained dry, while the rest of the hand was moist, and this despite energetic friction. In some cases, apparently those of partial division complicated by neuritis, the secretion of sweat has been described as excessive, and Weir Mitchell records cases in which it was very acid and foul-smelling.

Considering these facts by the light of recent researches in physiology, it might almost be said that such conditions would be only just what we might expect from nerve section or irritation; but it is interesting to note that they were observed before experiments had proved the dependence of the secretion on nerve supply.

The *temperature* of the paralysed parts often differs considerably from that of the opposite side of the body, of contiguous digits, &c. Immediately after section of a nerve—e.g., the median—the distal parts become suffused with blood, and appreciably hotter to the touch. Waller and Weir Mitchell have both shown that a similar rise of temperature follows on freezing the ulnar nerve at the elbow, and the latter observer has also demonstrated that this elevation does not occur if a tourniquet has previously been placed on the brachial artery,[4] thus showing the dependence on the vaso-motor system. This increased heat is well instanced in the following two cases:—

A man, aged thirty, divided his ulnar nerve on May 8th, 1885, and came at once to St. Bartholomew's Hospital, where the cut ends were sutured by the house surgeon, Mr. Murray. Eight hours after the accident the temperature taken between the fourth and fifth fingers was 100·2°, between the first and second, 99°.

	Between 4th and 5th fingers.	Between 1st and 2nd fingers.
May 10th	99·0°	98·0°
„ 11th	99·6	98·2
„ 14th	98·0	97·4
„ 15th	98·2	98·2
„ 16th	101·6	101·6
„ 18th	100·6	99·6
„ 19th	99·4	98·8
„ 20th	98·0	97·6
„ 21st	99·0	98·0

Speaking generally, the temperature of the paralysed fingers averaged about 1° higher than that of the others,

[3] Dublin Journal of Medical Science, 1838.
[4] Archiv of Sci. and Prac. Med., New York, 1872.

and this variation remained constant despite alterations in the general body temperature.

In the next case a woman, aged twenty-seven, divided her median nerve at the wrist. The following day the temperature between the index and middle fingers was 99°, whilst that between the ring and little finger was 96·6°; the day after, the temperature between the index and middle fingers was 98·8°, that between the ring and little fingers 97°.

The following case by Richelot[5] is a very remarkable instance of the rise of temperature that may follow on separation of peripheral parts from the nervous centres:—

Fracture of humerus followed by neuroma of median nerve; resection of nerve followed by rise of temperature in hand.—A man aged twenty-six was admitted to the hospital of La Pitié on Dec. 30th, 1882, on account of severe pains in the right forearm. His history was that at the age of seven years he had sustained a compound fracture of the lower end of the right humerus, and that the arm had always been in a weak condition and the elbow had been stiff. On admission there was found to be on a level with the site of fracture a small oval swelling the size of an almond, situated apparently on the median nerve. Pressure on the swelling caused pain referred to the thumb, index and middle fingers. In these fingers also sensation was much impaired. The muscles of the forearm and of the ball of the thumb were much wasted, but were not completely paralysed. The temperature of the hand on the affected side was 4·5° below that on the opposite side. On January 15th, 1883, Mr. Verneuil removed the tumour by operation, completely cutting out the portion of median nerve from which it grew, and not stitching the cut ends, but leaving them widely separated. The tumour itself was found to be a fibroma, separating the nerve tubules; and by its pressure destroying some of the nerve bundles. After the operation the temperature of the hand on the side on which the operation had been performed—i.e., the right—was 34°, of the left 30°. The day after the operation the temperature of the right hand was 35°, and of the left 25°. Sensation was still further lost, but was *nowhere entirely absent*. The further history of the patient is not given.

But although immediately after injury and for a varying number of days there is an increase of temperature in the peripheral parts supplied by the damaged nerve, yet in the course of about three weeks there is a decided fall of temperature, so that in by far the larger number of old nerve wounds the peripheral parts are cold and livid. The amount of loss of heat varies much. In one of Hutchinson's cases it was as much as 16° compared with the fingers of the opposite side, in two others 10°; and, indeed, it may vary between these and the normal temperature in a manner which admits of no rule being formulated. In a case brought before the Pathological Society,[6] the gradual restoration of heat, coinciding apparently with nerve repair, is well instanced. The patient was a boy aged six years and a half, who suffered division of his ulnar nerve in August 1861. In October of the same year the temperature of the fingers supplied by it was 10° lower than that of the others which derived their supply from the median and radial. On November 28th the difference was 5°. In July, 1862, the same. In February, 1866, there was only a difference of half a degree, and the muscles had resumed their normal bulk. Sometimes, however, even in cases of old injury, instead of any loss being discoverable, there is a distinct increase of heat, and Weir Mitchell found the temperature raised one or two degrees in cases of what he calls "causalgia." These cases seem comparable with those of increased sweating.

The *muscles* in connexion with a divided nerve undergo a rapid atrophy and degeneration, of a character which is completely different to the simple decrease in size which follows upon non-use. The final result of this process is a transformation of the muscle into a mass of fibrous tissue, firm and dense, neither contractile nor elastic, usually mingled with a little fat. For some time after the nerve lesion the muscle feels limp and flabby, the patient can exercise no control over it, and the tendon into which it is inserted no longer stands in relief under the skin; the muscle has, in fact, lost tone. This condition is gradually followed by wasting in bulk, and frequently by shortening of the muscle in its long axis. Vulpian describes a reduction in the diameter of the primitive muscle bundles, with granulo-fatty changes and complete disappearance of certain fibres: "In the early stage of alteration, the primitive fibres appear to be segmented, the muscular substance persisting in some places and being absent in others. At the same time we observe the formation of a more or less considerable quantity of fat-vesicles in the connective tissue which separates the secondary bundles of fibres, and much more rarely between the primitive fibres." Multiplication of the nuclei of the connective tissue of the muscle is also observed, while the vessels suffer only a loss of calibre, without other changes. The faradaic and galvanic excitability of the muscles is soon lost, but at present I shall not further allude to the changes in the electrical reactions, as I propose to treat of them at greater length in the section on Symptoms of Nerve Injuries.

(To be concluded.)

[5] Bull. et Mém. de la Soc. de Chir. de Paris, 1883, p. 433.
[6] Path. Soc. Reports, vol. vii.

Address

Delivered on May 6th, 1887, at the Meeting held for the formation of an

ANATOMICAL SOCIETY.

By PROFESSOR HUMPHRY, F.R.S.

GENTLEMEN,—I fully appreciate the honour you have done me in voting me to the chair on this occasion. The reason for your doing so may be found in the fact that my commencement of the study of anatomy dates from more than half a century ago, during much of which time I have been a teacher of anatomy, and it is therefore pretty certain that I am the senior anatomical student as well as the senior anatomical teacher here present; and though I have now to a great extent relinquished the study and teaching of anatomy, yet it may be supposed that I still cast lingering looks behind upon that field in which I for so many years worked happily and earnestly, and, I hope, not altogether unprofitably. I appreciate the honour, however, more especially because I feel that this is an important occasion—an epoch, it may perhaps be regarded, in the history of anatomy, and an occasion of much importance to the study of medicine generally. We are met together for the purpose of elevating the study of human anatomy, and placing, or endeavouring to place, the science of human anatomy on a level with, and in that proper relation to, the other branches of natural science which I think it has not for some time held, and which relative decadence is greatly to be attributed to the fact that it has not advanced *pari passu* with them. Since the time of Hunter, Cruikshank, Astley Cooper, and the Bells, human anatomy has lacked its proper interest, and has not held its own with the other quickly progressing branches of natural science. Hence it has come to be regarded as a merely practical subject, and its study to be merely a process of piling fact upon fact without due regard to the purport of the facts and the suggestions to which they should give rise. Far be it from me to disparage the value of anatomy as a practical subject, seeing that in this way it confers the greatest benefits upon humanity, and has, and ever must have, the first and chief claim to our regard. Nor would I disparage the educational benefits resulting from the acquisition of a clear and accurate knowledge of the structure of the body and the mental training derived thereby, which is of so much value to those who are entering upon the pursuit of medicine. But I feel that the study of anatomy should not be regarded from this point alone, but that a wider and higher view should be taken of it. The human body is undoubtedly the highest and most perfect of created works, the last and most perfect outcome of nature's laboratory, the central one around which all the rest of the animal world is grouped, to which all point, and which all are calculated to elucidate. It is provided with a surpassing mechanism, great results being produced by slight modifications from the forms of other animals, and the resultant being such acuteness of perception, and such variety, nicety, and precision of movement, as to give man the mastery over all others, and enable him to bend all

nature to his purpose. Moreover, its proportions, the outlines of its form, and the power of expression of its several parts in both sexes and at all periods of life, are such, and present so much beauty and variety, that it has formed subjects for the highest efforts of the greatest artists of all times, from Phidias and Raphael to Leighton and Millais. Further, in it the physical is worked up into that complex and mysterious elaboration and process which enables it to become the organ or agent of the mental and intellectual, the seat of the soul, the abode of Deity. The problems and conceptions, physical, artistic, and psychical, arising out of and associated with this material frame of ours, infinitely surpass in number and interest those of all other existing forms. It may be regarded therefore as one of the marvels connected with it, that the study of it should come to be regarded as dull and uninteresting, and profitable only for its direct practical relations with medicine and surgery. Surely it needs only the proper impulses, such as we trust will in part be furnished by the proposed Society, to obtain for it a due appreciation and position among the higher and educational sciences. It was this feeling which urged me to contend strongly, and I am glad to say successfully, for a place for human anatomy among the natural sciences at Cambridge; and I am convinced that it would be a benefit vibrating along the whole line of medical education if at the early stage of that education the student were accustomed to reflect upon what he sees and reads of in his anatomical course, and to associate thoughts respecting the mechanical and other relations of the structures which he dissects. One of the greatest, perhaps the greatest, defect in medical education—I might say in all education more or less, but in medical education especially—is the heaping upon and oppressing the student's mind with a load of facts which he neither digests nor appropriates, and which he therefore does not retain. His mind is like a sack crammed with grain which there is little power to fertilise or utilise. Far better would it be to lessen the load and to substitute the habit and the ability to reflect and really digest and appropriate the remainder—to give some opportunity for mental elasticity, and for that enjoyment of study which results from a real knowledge and appreciation of what is learned. As a general rule, we remember only—at any rate, we remember best—that information the bearings of which we have well understood, and which has consequently most interested and impressed us, and which we have most enjoyed. To make anatomy better remembered and a better mental training, it must be made more interesting, more attractive, and more thought-inspiring; and this is to be done by giving to it its proper scope as a medium of information, and by imparting to its details, which are now too cold and dry and sterile, the warmth and life and thought-budding energy which should belong to them. I have spoken chiefly of human anatomy because to it these remarks especially apply, and because the human body is the subject of the most serious and arduous study, and the manner in which it is prosecuted is the most important and the most relevant to our purpose. Not that the scope of the proposed Society is to be limited to it, but that our greatest opportunities for good will be in relation to it. Anatomy—the anatomy more particularly of the human body—is a very ancient and dignified science; indeed, a royal science. It was studied ages and ages ago by the people on the banks of the Nile, from whom we have derived so much; and we were told the other day at Cambridge by my learned successor in the chair of Anatomy that the earliest writing upon it of which we have any cognisance was by an Egyptian king who had passed away long before the exodus took place. It is for us to make it a royal science in a higher sense, and to give to the human body its proper royalty of position in the animal world, not merely by having regard to the paramount practical importance of its study, but by considering it also in relation to its mechanism or physical physiology, in its relation to embryology, in its relation to the anatomy of other animals, and also in its relation to the special structural features which may be associated with the occurrence of certain diseases. The attendance this afternoon shows a general interest in this movement, and augurs well for the formation and prosperity of the Society, which, I trust, will prove long-lived and useful. I will occupy your time no longer, for the relation between the brevity of life and the length of art, and the value of brevity in word as well as in action, are becoming daily more manifest in the quickly shifting scenes of this singularly mobile age.

TWO CASES OF THOMSEN'S DISEASE.[1]

BY THOMAS BUZZARD, M.D.,
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So far as I am aware, no case of the remarkable condition to which the name of "Thomsen's disease" has been applied has yet been described as having been observed in this country. Examples have been reported from Germany, France, Russia, Italy, Sweden, and the United States, whilst the description given by Dr. Thomsen, of Kappeln, Schleswig, himself a sufferer and a member of a family largely affected with the disease, is well known as the source of the name which has been bestowed on the affection. I would refer those interested in the literature of the subject to a digest of it published by Dr. Paul Chapman in *Brain* (April, 1883), which has been continued up to date by Dr. Hale White in the same journal (April, 1886). These two articles contain an admirable summary of existing knowledge upon the subject.

The patient, E. C. F——, aged twenty, engaged in a commercial pursuit, was sent to me by Dr. Izod, of Esher, on account of a peculiar difficulty in the movements of his limbs. As long as he could remember he had always suffered more or less from this trouble, but it had been noticed especially of late when he began to enter upon the duties of his business. In his own words, "before doing anything he feels that he must get his muscles ready." If he has been at rest for a short time and goes to make a movement the muscles not only contract but remain contracted, so that a very strong effort on his part is required to make a fresh movement. He cannot run upstairs; after taking one step he is not ready to follow it up with another. On seating himself he is often unable to flex the knees, so that his legs remain for a time rigidly extended. And so, again, on wishing to rise the muscles appear to be "set," and it is only by strong exertion that he can effect the necessary movement. He has often fallen down upon a railway platform on alighting from a carriage, because he has been unready to take the second step necessary to preserve his equilibrium.

It is characteristic of his condition that the difficulty described is only temporary. After a few flexion and extension movements of the knee the tendency to stiffness ceases, and does not return until after he has rested for a few seconds. Thanks to this peculiarity, he can ride a tricycle very well after overcoming the stiffness which results from the first attempts to move the treadles; but if an impediment on the road should compel him to cease "paddling" he encounters the old difficulty in recommencing. So, likewise, he can play lawn tennis very fairly when he has overcome the stiffness which obstructs his movements at the beginning. In skating recently, he observed that if he were stopped suddenly, as in a collision, he could not go on again for a few seconds; and if he fell, he lay "like a log," unable at first to move a limb. He feels difficulty in beginning to run, but after a little while goes on very well. He can stop easily enough, but his limbs then grow stiff, and he cannot start again for a few seconds. The difficulty in beginning to move after rest, or in changing one movement for another, is intensified by anything producing "nervousness." If, for instance, he is called sharply, he finds his muscles more than ever unfit to obey the orders of his will.

The patient is a sturdy-looking young man of middle height, whose general health has always been excellent. When stripped the thighs are found to be extraordinarily developed, so that one is reminded, as he stands, of the sculpture of Michael Angelo, the muscles being sharply mapped out, and standing forth when in action in bold relief. When contracted they feel firm and hard, but in a quiescent state are perhaps inclined to be somewhat flabby. The actual muscular force, as tested by the power of resisting passive movements, is distinctly less than might be expected from the bulk of muscle displayed; and the patient himself says that he is not very strong, and somewhat easily tired. When seated and asked to extend the leg upon the thigh, it is only after an interval of several seconds that he can do so. And

[1] The substance of a communication made to the Neurological Society of London at the meeting held on Jan. 27th, 1887, when the elder of the two patients was exhibited.

in like manner, the leg being extended, he is unable until after a similar pause to place his foot upon the floor. The extensor cruris muscular mass is felt contracted, and relaxes only by slow degrees. During the relaxation the patient feels pain of cramp-like character in the muscle. Except for this there is not the slightest sensory disturbance—no cutaneous anæsthesia, numbness, or loss of muscular sense; and the muscles are not tender when handled. If he lies upon the floor, the difficulty experienced in rising to his feet reminds one to a certain extent of that shown by a patient suffering from Duchenne's myosclerosis (pseudo-hypertrophic muscular paralysis), and the hypertrophy of his muscles lends aid to this general resemblance; but, as will presently appear, the electrical reactions are completely opposed to those which characterise that disease. The act of rising is laborious, and the help of the arms is much called upon. The knee phenomenon is entirely absent in each limb, even when the Jendrassik method is employed for testing it. The cremaster reflex is present, but weak; the plantar so imperfectly elicited as to leave some doubt as to its presence. Although the tendency to a tetanoid condition upon voluntary movement is by far the most strongly expressed in the muscles of the lower extremities, it is not absolutely confined to these. The patient describes some unreadiness and stiffness in the use of his arms. His articulation is peculiar, recalling to a slight extent that of a patient with trismus; and the lower half of the face is a little suggestive of the sardonic expression to be noticed in a case of tetanus. Occasionally his eyelids will become partly fixed in a half-open position, so that for an instant he can neither open them further nor shut them.

Examination elicits no signs of increased excitability to mechanical stimulation in the anterior crural nerve. A galvanic current of one milliampère applied to this nerve produced no muscular contraction; with two milliampères there was evident contraction in the vastus internus and externus and KSZ<ASZ; but on a second trial with the same strength of current, the condition was reversed—KSZ>ASZ. The inference was that the excitability of the *nerve* to galvanism is not heightened.

As regards the *muscle*, a push with a finger-point upon the vastus internus causes a lumpy wave of contraction to rise, which lasts for many seconds after the finger has been removed. If this be repeated, however, several times in rapid succession, a normal condition is brought about, so that the contractions following percussion subside with ordinary quickness. If after this the muscle be left quiet for fifteen or twenty seconds and the finger then again thrust into it, the phenomenon described is reproduced. It is evident that, unlike that of the *nerve*, the mechanical excitability of the *muscle* is greatly heightened. The muscles respond to a normal strength of faradaic current, and there is contraction of the vastus internus to a galvanic current of two milliampères, and KSZ = ASZ.

In the extensor communis digitorum of the left forearm the interruption of a galvanic current from four milliampères is necessary to cause contraction, and KSZ>ASZ. The excitability to galvanism of the thigh muscle is therefore apparently considerably greater than that of the muscle of the forearm. The peculiar condition of the muscular system gives rise to a remarkable phenomenon. The contraction of the vastus internus muscle following electric stimulation can be seen to persist long after the rheophore has been removed, and on several occasions of examination an interval of twenty-five seconds was required for the gradual return of the muscle to a state of relaxation.

The above figure has been engraved from a photograph taken for me by Dr. Wilson, resident medical officer, National Hospital, Queen-square. It is intended to exhibit the contraction of the vastus internus remaining long enough after removal of the rheophore to be photographed.

A similar condition was noted in the sural muscles, and was also well seen in those of the thenar and hypothenar eminences of the hand. The muscles of the arm and forearm scarcely showed the peculiarity, and those of the face not at all. There was but little marked persisting contraction in the muscles of the front of the leg, which thus presented a considerable contrast to those of the calf, but it must be noted that the latter were considerably hypertrophied. When the rheophore—strong galvanic current—was drawn over the skin covering the vastus internus, the wave of contraction produced under it had not subsided ere another arose, and the appearance thus presented was very remarkable. This phenomenon, with the others described, has been noted by Erb and other observers.

The effect of mechanical and electrical stimulation upon the muscle is the same as that which accompanies volition, and it is to the persistence of induced contraction that the patient's embarrassment of movement is due. In strict correspondence, again, with what takes place as a result of repeated voluntary action, the exaggerated tonicity of the muscles passes off after a few repetitions of the application of electric currents, and then the contractions are observed to relax in normal fashion and in the usual time. After a rest of ten seconds only the phenomenon can be reproduced. The patient has no complaint to make as regards the action of the sphincters or of the muscles of respiration, except that he rather easily gets out of breath, but this he attributes to being out of practice in exercise. The heart sounds are quite normal.

E. C. F—— is one of a family of sixteen children, his father having married twice, and he being the second child of the second family, which numbered seven. The first child, a sister, has no trace of the affection, but a younger brother, W. F——, aged sixteen, is affected like himself. His muscles present the same remarkable development, and his symptoms generally are so precisely similar to those of the patient first described that it is unnecessary to enlarge upon them. But in two respects there is an important distinction. In the younger brother the vasti muscles show an increase of excitability to induced currents, and the knee phenomenon is preserved to a normal extent. No other children of either family (except these two) present, as I am informed, any trace of the disease. The father is described as being of somewhat anxious temperament, and so, it is thought, is the mother; but the size of their family must be remembered. The father has suffered from gout in the toe; the mother's father also suffered from gout, but died at the age of seventy-three. Nothing in the nature of this peculiar affection is remembered as regards any member of the mother's family.

It has been reported that persons affected with this disorder betray irritability of temper, suspiciousness, and reserve. This does not appear to be the case in the patients described. Indeed, the elder has been singularly liberal in affording opportunities for the observation of his symptoms, and has evinced a most intelligent interest in the requisite examinations; and the younger has cheerfully assented to investigation of his condition.

The symptoms presented by the two brothers are very characteristic of the disease, which has acquired its best known designation from the physician whose description of it in his own person and family first drew any particular attention to it. The term applied to it by Strümpell, "congenital myotonia," conveniently suggests the exalted muscular tonicity which is apparently the immediate cause of the symptoms; whilst "myotonic contractions," which has also been suggested, has the advantage of avoiding prejudice of the question whether the condition is always congenital, about which some doubt has been expressed. Allan M'Lane Hamilton of New York, in an interesting article (referred to by Dr. Hale White in his critical digest), is disposed to doubt whether the so-called Thomsen's disease is a distinct malady, and suggests that the muscle stiffness on contraction is a frequent symptom in a variety of maladies. But the microscopical examinations made by Erb and G. Fischer would appear to show distinct anatomical changes in the muscular fibres—hardness and want of suppleness in the muscular bundles, with marked thickening of the fibres and changes in their transverse striation, together with increase in the number of nuclei of the sarcolemma.

I have never seen in any case of disease of the spinal cord or peripheral nerves the peculiar condition observable in

these patients, who, it must be remembered, are, with the exception of the exalted muscular tonicity, in perfect health. There are no doubt remarkable tendencies to rigidity in certain organic and functional diseases of the nervous system, but they differ, according to my experience, from the state observed in Thomsen's disease, which is quite *sui generis*. In view of the fact that rapid repetitions of voluntary or mechanically induced muscle contractions will cause the abnormal tonicity of the muscle to disappear, at least for the time, it seems to me difficult to refer the peculiarity to the anatomical changes as a cause. One would perhaps feel more disposed to conjecture that these might be a result of a functional abnormality. But much extended observation will be required ere we can usefully discuss this point. I would refer incidentally to a circumstance of peculiar interest. In the view of some authorities the knee phenomenon depends upon locally induced contraction of a muscle, the tonicity of which it is essential should be well preserved. It would appear that the chief characteristic of the disease under discussion is an exaggerated tonicity of muscular fibres, and *cæteris paribus*, if the "tonus" theory of the knee phenomenon were correct, one would expect to find the response to a blow on the ligamentum patellæ more than usually well marked in such cases as I am describing. But instead of this the knee phenomenon is entirely absent in the elder of the two brothers. At the same time the cremasteric reflex is very weak, and the plantar only doubtfully present. In the younger patient, as I have remarked, the knee phenomenon is present. According to the summary derived by Dr. White from a consideration of the various recorded cases, it is the rule that the reflexes are normal. It does not seem that they are ever exaggerated.

It is scarcely necessary to remark that in the absence of any definite information as to the pathology of this affection nothing satisfactory can be said in reference to its treatment. As it is seen that exercise of the muscles, either by voluntary use or electric stimulation, conquers for a time the tendency to persistent contraction, trial is being made of the galvanic current, and regular exercise is recommended to the patients.

Grosvenor-street, W.

CASES OF TREPANATION OF THE MASTOID PROCESS.[1]

BY CHARLES WILLIAMS, F.R.C.S. EDIN.,
SURGEON TO THE NORFOLK AND NORWICH HOSPITAL.

CARIES and necrosis are more common in the mastoid than in any other part of the temporal bone. They are more frequently met with in childhood than in adult life, on account of the anatomical relations of the bone, which are highly favourable to the retention and consequent inspissation and putrefaction of the pus formed in suppurative inflammation of the mucous periosteal lining of the mastoid cells. If during the inflammation ulceration takes place, the bone, deprived of its periosteum, is very soon involved in the molecular necrosis of the tissues, and caries is the result. With caries of the mastoid process the posterior wall of the meatus is almost always deprived of its periosteum and perforated. This condition was well marked in two of the cases about to be related, as well as in a specimen removed from a boy who died of abscess of the brain. The specimen is interesting from the fact that the mastoid abscess perforated the bone in three places.

The first case is that of William K ——, aged forty-nine, a coachman, who was admitted into the Norfolk and Norwich Hospital under my care in May, 1883, suffering from severe pains over the right side of his face and head; it generally commenced behind the ear and shot upwards, and was of a boring, grinding character; it made him feel very ill, and he looked as if he were in great suffering. Occasionally he had cold shivering fits, alternating with hot feverish attacks. He had a furred tongue and a temperature of 101°. He carried his head on one side, and drawn to the right shoulder. Behind the right ear the parts were red and œdematous; very tender when touched. Pus was being discharged from the meatus; it was seen to issue from a small opening behind the cartilaginous portions of the auditory canal on its posterior and upper side; a small granulation marked the spot. Hearing was most imperfect; the membrana tympani dull and convex. The man stated that his affection began four months before admission, after driving through a severe snowstorm, in which snow was driven into the right meatus. The same night he experienced pain in the ear. This increased in severity, and a month later the skin behind had become swollen, tender, and inflamed. This state of affairs gradually increased in intensity, besides extending down the neck, until the day of his admission. Ten days later he was placed under the influence of ether, and a straight incision made downwards over the mastoid process. As the tissues were infiltrated with inflammatory products, the incision was carried to a considerable depth before the bone was fully exposed, the condition of which was softer than usual. A small gouge soon penetrated it, and thick pus immediately oozed up. The opening was now carefully enlarged, and its connexion with the auditory tube followed up and also enlarged. The parts were well syringed out with carbolic water, a drainage-tube placed in the wound and drawn out through the meatus, and cotton-wool placed over all. A few days later an abscess, which had been forming deeply in the neck, opened into the wound and discharged very freely. A month after the operation the wound had healed, the membrana tympani was in a healthy state, and his hearing almost perfect. He was then sent to Yarmouth. In less than a fortnight he returned to the hospital suffering from an attack of erysipelas of the face and head, which rendered him delirious for a week. Eventually he got quite well, and I have seen him many times since. Even so lately as last week he expressed himself as being in excellent health, and his hearing good.

The second case was that of a young woman from whose right ear thin fetid pus was constantly discharging itself. There was a fistulous opening in the upper and posterior wall of the auditory canal, and another over the mastoid process. A probe could be made to pass from one to the other. She came under my care in this hospital with the hope of being relieved. She could give no account of the origin of her trouble. The membrana tympani was absent. Whilst under the influence of ether an incision was made over the mastoid, which was softer than it is naturally. All the carious bone was freely gouged away, and the opening extended into the auditory canal, through which a drainage-tube was placed. She recovered well, but had lost her hearing from disorganisation of the tympanum.

The third case was that of a schoolmaster in this city, who, when I first visited him, was suffering great pain and uneasiness over the left mastoid; it was severe enough to keep him in bed. No inflammation could be made out; no œdema over the mastoid. The membrana tympani was healthy, and hearing fairly perfect. For three months he tried every known remedy, both externally and internally, and failed to obtain the least relief; and, although there was no external sign of an abscess, I proposed as a last resource to cut down upon and open the mastoid process. The patient readily assented to this. The periosteum was found to be thickened, but not otherwise altered. This was freely incised, and I now attempted to perforate the mastoid with Hunter's trephine. So dense and hard was it that I utterly failed to make the smallest impression on it. Nor was I more fortunate with Marshall's necrotome. I was reluctantly obliged to close the wound from that day. My patient suffered no more pain; the wound healed rapidly, and at the present time—four years from the date of the operation—he is in perfect health, and free from any auditory annoyance.

Remarks.—Dr. Voltilini is the only authority who has directed attention to this peculiar affection, which he represented as a "form of mastoid periostitis undescribed by otological authorities." To him is due the credit of having given a clear and detailed description of this disease. "The ear," he observes, "may remain intact, but may sometimes in the course of the affection participate in the inflammation. The disease begins with severe tearing pains on one or both sides of the head, which extend to the side of the face and teeth." In three cases reported by Dr. Voltilini all were the result of cold and exposure. In one case, after the use of leeches, which did not diminish the symptoms, a long and deep incision was made over the mastoid. The pain was almost immediately relieved, the patient slept well, and made a good recovery. Dr. Turnbull[2] remarks:

[1] A paper read before the Norwich Medico-Chirurgical Society.

[2] Imperfect Hearing. Philadelphia, 1881.

"A study of these cases (one by Dr. Blake of Boston, one by Dr. H. Knapp of New York, and my own) shows the disease to be neither one of the auricle, the external auditory canal, the tympanic cavity, nor the mastoid cells, but one that originates without, and not within, the ear, and one that might progress inwards, but would hardly penetrate deeply.

The next case was that of a boy aged seven years, under my care in the Norwich Hospital, and very kindly transferred to me by Mr. Cadge in December, 1885. He had an attack of scarlet fever five years ago, and from that time has suffered from otorrhœa of the left ear. Three weeks before admission he complained of severe pain in the head, especially about the vertex; he had a peculiar way of looking upwards, and generally carried his head on one side (the right); he used to walk against things as if he had lost his sight, and had occasional attacks of vomiting. He is fairly well nourished, of light complexion; has a vacant expression; was able to read and write, but can do neither now, the sight being so imperfect, so much so that he cannot distinguish letters. The pupils are widely dilated and act feebly. In walking he proceeds very cautiously and slowly. Is dull and stupid. Has no paralysis, either facial or lateral. There is a free offensive discharge from the left ear, and a tender swelling behind. The membrana tympani and ossicles absent. On Jan. 8th, 1886, he was etherised, and a long deep incision made over the mastoid process. A good deal of pus was found to be lying under the periosteum. The surface of the bone was rough and carious. This was chiseled away, the mastoid cells freely opened, and a communication made into the auditory canal. A drainage-tube was passed into the wound and out through the meatus. The wound was well syringed with boracic lotion, and the ear covered over with carbolised dressing. Two months later the wound had healed, the discharge had ceased, the boy was less dull, could see well, and run about without fear.

Remarks.—Of all cases within the domain of surgery no case is so likely to terminate fatally if left to itself as that of inflammation of the tympanum, whether it be acute or chronic; and no case is so likely to end well as such a one if operative proceedings are adopted early. An abscess in the immediate vicinity of the brain carries with it grave danger, and the early opening of that abscess is the only protection against the destructive effect of pent-up matter. Surgeons, as a rule, hesitate too long in dealing with abscess of the mastoid process; precious time is thus lost, irreparable mischief is sustained by the structures of the tympanum, and a fatal termination from abscess of the brain, meningitis, or pyæmia is too frequently the result. On this point Hinton observes: "I have never regretted making the incision, and scarcely ever decided against making it without regretting that I did not." Sir William Dalby says: "No time should ever be lost in providing an escape for pus. Pain and tenderness over the mastoid process should always demand immediate attention, and especially when the tympanic membrane is perforated. If, in addition, there should be any redness or pitting upon pressure, it may be assumed with great confidence that there is pus in the mastoid cells." At the same time, a word of caution on one or two points in connexion with this operation may be useful. It is well to remember how near the lateral sinus is; it lies immediately behind the mastoid process; and if this process has become softened from the long retention of pus within its cells, a condition results named by some "caseous degeneration." The trephine or chisel may readily slip through this into the sinus. As a precautionary measure the finger-nail or the point of the scalpel should be pressed against the bone; and if it does not yield we must proceed to operate with the gouge or trephine. The form of trephine I like best is that used in America, and known as Dr. Buck's. It is a more manageable instrument than Hinton's, and more under control. I have had fitted to mine a small conical-shaped necrotome, which will be found of great use. Having perforated the bone with the trephine, the necrotome can be used to enlarge the opening; but should the bone be soft, Volkmann's scoop is unquestionably the safest and best instrument with which to scoop away all carious bone.

AT the annual meeting in connexion with the Association of Public Sanitary Inspectors, on the 7th inst., the President (Mr. Edwin Chadwick, C.B.) delivered an address on the Financial Value of Sanitary Science.

PARALYSIS OF THE DIAPHRAGM AFTER DIPHTHERIA, WITH EXTENSIVE PULMONARY COLLAPSE; RECOVERY.

BY W. PASTEUR, M.D. LOND., M.R.C.P.,
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J. H——, five years of age, came to the out-patient department of the North-Eastern Hospital on May 3rd, 1886, with the following history. During convalescence from chicken-pox in March his mother noticed a swelling (probably glandular) on the right side of his neck, but the child did not complain of pain or difficulty in swallowing, and there was no regurgitation of liquids through the nose. On April 26th the boy was in perfect health, but shortly after this he began to languish and became rapidly weaker. It was also noticed at this time that he began to walk in a very peculiar manner. He reeled into the out-patient room like a drunkard; his gait was markedly ataxic and unsteady. No obvious paralysis of the soft palate could be made out, but the voice had a nasal "timbre." The heart was acting strongly, the pulse being full and regular. The knee-jerk was absent on both sides.

The child was taken into the hospital a week later in the following condition. A fairly nourished, somewhat frail-looking boy, with a dry, cool skin, healthy lungs, and good pulse. Nervous system. The intelligence is good, the expression rather listless. There is no facial paralysis. The pupils are equal and active, and the ocular muscles healthy. The tongue is protruded in the median line. The child swallows slowly, but there is no regurgitation of food. The voice is weak and nasal in quality. The movements of the soft palate are very limited, but equal on the two sides. There is marked paresis of the muscles of the trunk and extremities. The child is unable to sit up in bed without assistance; the grasp of both hands is very feeble, and when put upon his feet he begins to sway to and fro, and would fall if not supported. Tactile sensibility, as far as can be ascertained, is intact. The knee jerk is absent on both sides, but the superficial reflexes are all readily elicited, and with one exception (the plantar) remained present throughout the illness. There is no ankle clonus. Since the beginning of this illness the patient has been troubled with rather obstinate constipation. There is incontinence of urine, which, however, existed previously. The child has a slight dry cough, but examination of the lungs does not reveal any abnormal physical signs.

Progress and termination.—The first sign of heart failure appeared on May 13th, when the pulse became irregular and increased in frequency. On the following day paralysis of both legs was absolute. The plantar reflex was a little delayed, and tactile sensibility in the legs appeared to be blunted. The patient was still able to take his food and stimulants by the mouth, though with some difficulty, and an odour of sour milk was perceptible in the breath. During the next few days there was a gradual increase of the paralysis of the trunk and arms. The movements of the ribs seemed to grow less day by day; the head rolled helplessly to one side or other when unsupported; the child had lost all power of movement over both shoulder-joints, but was still able to move the forearms and hands, though even here muscular power was almost in abeyance. The voice meantime had sunk to a whisper, and the cough was aphonic and ineffectual, having almost entirely lost its explosive character. Up to this time the treatment had been of the simplest. The child was placed in a curtained cot in a warm corner of the ward, and strict orders were given that he should be moved as little and as gently as possible. Constipation was relieved by simple enemas as often as necessary, and small doses of liquor strychniæ were administered every four hours. The diet consisted entirely of milk and beef-tea, with an ounce and a half of brandy in the twenty-four hours. At this period of the illness the most serious factor was the great difficulty experienced in getting the child to take a sufficient quantity of nourishment. Owing to the very slow and imperfect manner in which the act of swallowing was performed, it was found impossible to give more than two or three teaspoonfuls of food at a time, and this made the total quantity for the twenty-four hours far below what one would have wished the patient to take. During the last forty-eight hours, too, the ingurgitation of food had given

rise to one or two severe paroxysms of coughing, which greatly exhausted the child. It was accordingly decided to make up the deficiency by giving nutrient enemata. On the following morning (May 20th) an alarming train of symptoms suddenly developed. Respiration became greatly embarrassed and the lips and extremities cold and bluish. Examination of the chest showed that the right side was practically immobile, with the exception of the two or three upper ribs. The percussion note was much impaired over the right front and right base. At the right apex in front the breathing was loud and tubular in the upper spaces, weak over the middle lobe, and almost inaudible at the base. Behind, above the level of the scapular angle, the breath sounds were fairly loud and bronchial. No crepitations or râles could be discovered. (Morning temperature 99·4°; evening 99°.) The quantity of stimulants was increased to three ounces per diem.

On May 21st the child was much weaker. The front of the chest was alone examined. There was weak tubular breathing without râles and impaired resonance all over the right front, with exaggerated breath sounds on the left side. The heart was not displaced; its action was rapid and feeble (144). The movement of the right half of the chest in respiration was just appreciable, and it was observed that the epigastrium receded during each inspiration, whilst it bulged very slightly during expiration and more distinctly so during cough, an indication of partial if not of complete paralysis of the diaphragm. The cough was ineffectual, very frequent, and much aggravated by giving food, owing no doubt to a certain amount of leakage into the air passages. The temperature was rising (100°), and the pulse (144) becoming thready. The condition of the child was critical; indeed, there seemed but little hope of recovery. The chest was wrapped in cotton-wool, and food by the mouth entirely withheld, nutrient enemas of pancreatised milk or beef-tea with brandy, three ounces every four hours, being substituted. Further, the house-surgeon was directed to give hypodermics of brandy and ether (half a drachm of each) at intervals of a few hours, if necessary. Some half-dozen injections were given in the course of the following two or three days. The next day there was no improvement in the patient's condition. The temperature was 102°, and the pulse, in spite of free stimulation (brandy, four ounces), was weaker and more thready (156), and only just perceptible at the wrist. On May 23rd the temperature reached 102·4°, and the case appeared quite hopeless. During the night, however, the severity of the symptoms abated somewhat, and there was a very slight but appreciable improvement on the morning of the 24th. The return of movement in the right side of the chest and a rapid disappearance of the signs of diaphragmatic paralysis were amongst the most favourable signs. Examination of the backs (first time) revealed the existence of bronchial and tubular breathing at the right apex and posterior apex of the lower lobe. At the extreme base there was distant weak breathing, probably due to collapse. Over the left back there was exaggerated breathing. The child now continued to improve slowly. Swallowing soon became easier, so that on the 26th he was able to take seventeen ounces of liquids by the mouth. (Nutrient enemas reduced to three in the twenty-four hours.) On the 28th every sign of diaphragmatic paralysis had disappeared, and the two sides of the chest moved almost equally. The physical signs at the right apex continued much the same (dulness, tubular breathing, bronchophony, &c.). There were a few coarse crepitations of doubtful nature in the right axilla, which rapidly disappeared. The cough was still troublesome, but had to some extent regained its explosive character. The pulse rate had fallen to 108; the pulse was of fair strength and regular. Temperature normal. On May 31st the patient had regained some power over the shoulder-joints, and there was evidence of a general, if slight, recovery of muscular power. The knee jerk was still completely in abeyance. Swallowing had so far improved that the nutrient enemata were discontinued. A few days later the last sign of imperfect deglutition—the sour milk odour of the breath—had disappeared. There was now harsh breathing, without râles, at the right apex, with a little dulness at the angle of the scapula and weak breathing at the base. On June 11th the child was allowed to sit up in bed for the first time. The voice had returned, but was still "reedy." The movements of the soft palate were normal. (Takes food and stimulants well.) There was considerable power in both legs, with marked incoördination of movements. The plantar reflex was not obtained on either side; the other superficial reflexes were normal. Physical signs in chest quite healthy. Heart strong and regular. From this date convalescence was uninterrupted. The plantar reflex returned towards the end of June. In the first week of July the child began to walk with assistance. For some time his gait was very ataxic as well as feeble. He was discharged cured on July 24th, but the return of the knee jerk was delayed for several weeks longer.

Remarks.—The features of this case which call for comment are (1) the paralysis of the diaphragm; (2) the nature of the lung affection, and its relation to the diaphragmatic palsy. Paralysis of the diaphragm after diphtheria is of sufficient rarity to deserve mention, and, as far as I can ascertain, recovery from this complication is very rare indeed. Under any circumstances paralysis of this muscle is attended with very grave danger, and when it is borne in mind that in the present instance it occurred in a child with all four limbs paralysed, with great enfeeblement of the muscles of the neck and trunk, and with unmistakable evidence of severe heart disturbance, the recovery of the patient furnishes a striking example of the extraordinary recuperative power possessed by children, and of the paramount importance of leaving nothing undone in the way of treatment on the plea that a case is hopeless. The extreme feebleness of the respiratory movements rendered the signs of the paralysis less obvious than usual. But the superior costal type of the breathing, the complete loss of inspiratory protrusion at the epigastrium, with protrusion during, but not before, attempts to cough, were sufficiently marked to make the diagnosis a matter of certainty. And if confirmation had been needed, it was furnished by the rapid return of normal physical signs and respiratory movements, coincident with the disappearance of the clinical signs of diaphragmatic paralysis.

Of the exact nature of the lung condition it is not easy to speak with certainty, but it is important to note in this connexion that for two or three days previously there had been evidence of slight leakage of fluids into the air passages, and that the cough was powerless to clear the bronchi of any obnoxious material—a condition of things favourable to the production of collapse or bronchial irritation. It is just possible too that some temporary arrest or disturbance of function in the right vagus nerve was a factor in the causation of the changes observed. The physical signs were those of collapse of the base (there was no pleural effusion), with pneumonia or broncho-pneumonia and collapse of the remainder of the lung. The onset was unlike that of croupous pneumonia. There was no rigor; the temperature rose gradually, reaching the highest point (102·4°) on the fourth day, with a morning remission each day. The respirations increased from 24 to 48, and the pulse rose to 144. There was a rapid fall of temperature and amelioration of symptoms on the fourth day, which coincided with the return of diaphragmatic movements. The speedy disappearance of the abnormal physical signs at the apex and the almost complete absence of crepitation or râles from first to last in every part of the affected lung would seem to show that simple collapse preponderated largely over the pneumonic element—if, indeed, this was ever present to an appreciable extent. The limitation of the lung condition to one side admits of two explanations: either the right half of the diaphragm was more paralysed than the left, of which there was no other evidence; or, which is more probable, there was a temporary paresis of the right intercostal muscles, especially in the lower interspaces. In conclusion, I would draw attention to the powerful stimulating action of the hypodermic injections of brandy and ether, without which I doubt whether the child's life would have been saved.

Queen-street, Mayfair, W.

VICTORIA HOSPITAL FOR CHILDREN.—A festival in commemoration of the twentieth anniversary of this charity was held on the 6th inst., the Duke of Cambridge presiding. The main object of the festival was to provide funds for a large addition to the hospital buildings which were opened by the Prince and Princess of Wales in June, 1886. Last year the number of in-patients was 561, and of out-patients 37,566; the aggregate number attended to since the foundation of the charity being 364,164. During the evening subscriptions and donations amounting to over £1200 were announced by the Secretary.

CANCER AND PHTHISIS AS CORRELATED DISEASES.

BY W. ROGER WILLIAMS, F.R.C.S.,
SURGEON TO THE WESTERN GENERAL DISPENSARY; SURGICAL REGISTRAR TO THE MIDDLESEX HOSPITAL.

IN consequence of the unity of nutrition existing among all the parts of every living thing possessed of any organic solidarity, changes of nutrition affecting an individual part necessarily react on other parts. This relation, which is known as correlation, was first clearly pointed out by Cuvier with regard to normal states, and it is equally applicable to morbid conditions. Such correlations are, indeed, very numerous. They may be regarded as the outcome of a powerful synthetic tendency, which causes the individual whole to be as much conditioned by its parts as each part is conditioned by others. But why changes in this or that part should be linked with this or that particular correlation, whilst variations in other parts, apparently equally important, excite no such correlated changes, is for the most part beyond our ken. In some instances the developmental history of the correlated parts gives us a clue, as in the case of homologous structures, such as teeth and hair, which are particularly liable to vary together. But very often no such indication can be discovered. We cannot say whether one part governs the others, or whether all are governed by some earlier synthetic tendency. Why, for instance, should colour and constitutional peculiarities go together? What connexion is there between deficiency in pigment and such changes in the muscular and osseous systems and in the general constitutional condition as albinoes exhibit? Why should such individuals be weaker in body, more delicate, and more feebly developed than others with pigment of their own species? Why, too, should the degree of development of pigment in the epidermis so greatly influence the susceptibility to certain diseases and drugs? How is it that red-haired persons are more liable than others to melanosis? Why are white cats with blue eyes nearly always deaf, and why are white horses distinguished from their coloured congeners by special liability to sarcomatous tumours? A similar question might be asked with regard to the curious correlations seen between quite distinct parts in many cases of monstrosity. In all of these instances no explanation is possible in the present state of our knowledge. Indeed, the subject has been but little investigated. In this wide uncultivated field rich harvests may be gathered.

I now propose to point out, in the briefest manner possible, the correlation between cancer and phthisis. For detailed treatment of the subject I must refer the reader to the Middlesex Hospital Surgical Report for 1885. The following facts show that there is the most intimate connexion between the two diseases. The widespread belief as to the incompatibility of phthisis and cancer is attributable to the erroneous teaching of Rokitansky. That such a grossly inaccurate statement should ever have obtained credence shows the folly of blind submission to authority in such matters. The chief evidence to be cited may be arranged under two heads:—

1. As to *family history*.—(*a*) Of 134 families subject to *breast* cancer, one or more relatives, among the adults, were known to have died of, or were subject to, phthisis in 74, or 55·2 per cent. (*b*) Of 129 families subject to *uterine* cancer, one or more relatives, among the adults, were known to have died of, or were subject to, phthisis in 60, or 46·5 per cent. (*c*) Similarly, of 53 families subject to cancer of the *tongue* and *mouth*, phthisis prevailed, among the adults, in 17, or 32 per cent. Thus in these 316 cancerous families there was a history of phthisis in 151, or 47·7 per cent. There was a history of both phthisis and cancer in the same family in 18 cases out of 134 families subject to *breast* cancer, and in 14 cases out of 129 families subject to *uterine* cancer. In a large proportion of the foregoing cases the causes of death were unknown. If these had been eliminated, the amount of phthisis would have appeared much greater, as may be judged from the following statements in which this has been done. Thus, 40·9 per cent. of the fathers of patients with *breast* cancer were of phthisical families, and 33·9 per cent. of the mothers. Of the fathers of patients with *uterine* cancer, 40 per cent were of phthisical families; and of the mothers, 30·3 per cent. Of the fathers of patients with cancer of the *tongue* and *mouth*, 29·4 per cent. were of phthisical families; and of the mothers, 5·8 per cent. With regard to the prevalence of phthisis among these patients' *brothers* and *sisters*, in 88 families subject to *breast* cancer there were one or more deaths from phthisis, among the adults, in 40; in 81 families subject to *uterine* cancer, in 41; and in 52 families subject to cancer of the *tongue* and *mouth*, in 14.

2. As to the *necropsies*.—(*a*) Of 44 necropsies for breast cancer, old arrested phthisical lesions were found in 4 instances; and in 2 other cases the patients had died with phthisis in active progress. (*b*) Of 88 necropsies for uterine cancer, old arrested phthisical lesions were found in 12 instances. (*c*) Of 34 necropsies for cancer of the tongue and mouth, in 5 cases old arrested phthisical lesions were found; and 4 other cases had died with phthisis in active progress. Thus in these 166 necropsies cancer and phthisis were found associated in 27 cases, or 16·2 per cent.

PNEUMONIA.

BY REGINALD G. ALEXANDER, M.A., M.D.,
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THE subject of pneumonia, at all times interesting, has been specially brought before my notice during the last week, having seen a number of cases, brief notes of three of which, occurring under different forms, by way of illustration I extract from my note-book. By the perfection of our modern diagnosis the physical signs of pneumonia are perhaps more defined and certain than in any other disease. Conditions of weather and climate are no doubt chief factors in its production, especially a climate which is variable and damp; but all debilitating conditions of the system specially predispose to the disease. The symptoms are too well known to require enumeration. The prognosis is grave in proportion to the implication of both lungs, the number of respirations, temperature, state of pulse, and nervous system. In protracted cases the possibility of indurative consolidation must not be overlooked, as in Case 2. In considering treatment, we must recognise the fact that it is a general and not a local affection with which we have to deal. The heroic methods of the past, which caused great mortality—venesection, large doses of tartar emetic, &c.—had for its aim the cutting short of a local affection. The great danger in pneumonia is cardiac failure, and it is necessary to husband the strength until the disease subsides. If hyperpyrexia is the prominent symptom, the treatment by baths adopted abroad is certainly justifiable, with the object of diminishing the injury to the heart by the pyrexia, and it is occasionally useful when, with a high temperature, great dyspnœa threatens life. There is always a danger of falling into routine treatment. Every case should be treated on its own merits, as the disease requires different management under different conditions. Pneumonia neither requires nor will it endure the active measures which were formerly practised. We should have clearly before us what we intend to acomplish by any particular line of treatment, and in this way, and in no other, will our success in the great majority of cases be complete and satisfactory.

CASE 1.—I saw with Dr. Windle at Ovenden on Sunday night, Feb. 13th, a young man, previously healthy, suffering from acute croupous pneumonia. His dyspnœa caused him to concentrate all his efforts on breath-getting. Respiration 72; pulse 130; temperature 104°. Sputa bright-red blood; absolute dulness of left lung, anteriorly and posteriorly; bronchial breathing and bronchophony well marked. Diagnosis: Pure pneumonia, second stage. Prognosis hopeful.

CASE 2.—On Feb. 12th, and again on the 14th, I saw at Southport a case, with Mr. Heath, of very different character. A young lady at school, aged eleven, had been under Mr. Heath's care suffering from catarrhal pneumonia of the left lung for three weeks. All had gone well, the only unusual symptom being a temperature lower at night than in the morning (evening temperature 101°; morning 102·5°). The lung had cleared up, with the exception of the lower third of the base posteriorly, which was consolidated, and at the line of healthy and solidified lung marked bronchial breathing and bronchophony existed. Tongue furred. Pulse 108, somewhat sharp; respiration only 18. Lung expansion elsewhere very good. The diagnosis was uncertain

on account of the family history: chronic interstitial pneumonia or tubercular deposit.—May 8th: The patient has steadily improved, is still under Mr. Heath's care at Southport, and able to walk and drive out daily.

CASE 3.—On Feb. 9th and subsequent days I attended a lady aged thirty-seven, married, with children, who for ten months had suffered in consequence of domestic bereavements from complete anorexia, want of sleep, dyspnœa, and general debility. The day previously to the attack she had exposed herself to inclement weather, and developed acute croupous pneumonia of both lungs. There was also mitral insufficiency and excited loud bruit, with great cardiac impulse. Respiration 76; pulse 150; temperature 105°, intermittent and flickering; clammy sweat. She was apparently sinking. She was ordered mustard and linseed poultices, eggs and brandy, alternating with port wine and stimulants generally; drachm doses of steel wine and dilute hydrobromic acid, with compound conium and morphia pill (¼ gr.). The patient would have died during the night but for the unsparing use of stimulants, which were continued for several hours until the pneumonic symptoms had subsided. On the 16th her condition had greatly improved, sleeping and eating well.

In simple cases of pneumonia, however, no stimulants may be required, and an expectant plan of treatment which does not interfere with nature's efforts at a cure is the plan most desirable and efficacious.

Halifax.

ON A CASE OF PERSISTENT PRIAPISM.

BY J. MACKENZIE BOOTH, M.A., M.D.,
PHYSICIAN TO THE ABERDEEN GENERAL DISPENSARY.

CASES of persistent priapism crop up in practice from time to time, but their occurrence is rare enough and their causation sufficiently obscure to merit a passing notice. Several cases of this nature lasting from one to four months are recorded in THE LANCET in 1845, 1867, and 1873, in most of which excessive coitus was the exciting cause. In a case lasting for six weeks, which recently came under my observation, no such cause was present, nor was there any coexisting injury or disease of the spinal cord or nerve centres to account for the condition.

The patient, W. S——, a seaman, aged fifty-five years, was a married man with twelve children, most of whom were grown up. Save for a dysenteric attack thirty years before, which prostrated him for six weeks, he had always enjoyed good health. He had always been of temperate habits, and had never suffered from venereal disease. While at sea on June 27th last, he awoke in the morning with the penis erect and very painful, especially at the root. He said that the day before he had been exposed to cold and wet. Two days later, during which he was unable to sleep for the pain, he came under my care. I found him lying in bed with his knees drawn up so as to prevent the bedclothes from touching the affected parts. The penis was erect, hard, painful to touch, and bent backwards along the abdomen in the middle line, and the scrotum was much relaxed. The pain was most severely felt on either side of the crus, and the parts there were found to be hard, swollen, and exceedingly painful to touch. Otherwise he was quite well and had been in robust health up to the time of this seizure. There was no other disease of the urinary apparatus or rectum discoverable, and the urine was normal and easily passed. A purgative was administered, and half-drachm doses of the bromide of potash ordered to be taken twice daily. This was continued steadily for four days without the slightest change in the affected organ. On the second night an enema of a drachm of laudanum in two drachms of starch was given, after which the patient had a few hours' sleep. On the fourth day ice was applied to the penis and continued for over a week. Small doses of tartar emetic combined with morphia were also administered at intervals, nausea being occasionally induced. Still, the penis remained as turgid as ever, and exceedingly painful to touch. During the next four weeks, after consultation with the late Professor Dyce Davidson, everything that we could suggest to relieve the painful condition was tried. Oleate of morphia and other anodynes rubbed into the penis and perineum, and morphia suppositories, gave only temporary relief to the pain. Blisters were applied over the perineum, and free leeching both over the perineum and the penis itself, were resorted to, but without appreciable effect. The amount of turgescence varied slightly from time to time, but was not materially reduced at the end of the fifth week. During all this time, too, the hardness, swelling, and pain were most marked over the muscles at the root of the penis, and there was total absence of sexual desire throughout. In the beginning of the sixth week he was ordered five-grain doses of the iodide of potash in mixture, to be taken four times daily. From that time there was a steady improvement, till in a fortnight's time—i.e., at the end of the seventh week—the penis had wellnigh regained its wonted condition, and the patient was able to don his nether garments and walk about without pain. He shortly afterwards resumed his seafaring life, and since then he has had no recurrence of his troublesome malady.

In the above case the causation was different from that of most of those previously recorded. In these the history of injury of nerve centres or excessive coitus generally pointed to distant or reflex nervous irritation as the main cause of the priapism, but here it was evidently due to local inflammation about the muscles constricting the bulb of the penis. The marked swelling, hardness, and pain over these muscles, coming on a few hours after exposure to cold and wet, and continuing while the turgescence of the penis lasted, indicated continued obstruction to the venous efflux as the chief factor in its causation. The exhibition of the iodide of potassium seemed to have a beneficial effect in hastening the recovery, as up to the date of its administration the symptoms had shown no sign of abatement, while immediately thereafter gradual improvement took place, terminating in complete relief in fourteen days. The perusal of a closely analogous case reported by Dr. Mitchell Bruce in THE LANCET (vol. i. 1873, p. 90) led to its adoption. In that case also the patient was a man of fifty-five years, the priapism lasted six weeks, and it subsided in twelve days during the exhibition of the iodide of potassium.

Aberdeen.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

WESTMINSTER HOSPITAL.

PUNCTURED WOUND OF BRACHIAL ARTERY; ARREST OF HÆMORRHAGE BY PRESSURE; SECONDARY BLEEDING ON TWENTIETH DAY, WITH FORMATION OF DIFFUSE ANEURYSM; LIGATURE OF VESSEL; REMARKS.

(Under the care of Mr. A. MARMADUKE SHEILD.)

WOUNDS in the neighbourhood of the larger arteries are always of importance, and cause much anxiety to the surgeon until the danger of secondary hæmorrhage is over and the wound healed. It is often difficult to say from the character of the hæmorrhage and the colour of the blood whether the loss is from artery or vein, and if free pulsation is felt in the artery below the region of the wound the difficulty is increased. The following is a case in which the more serious symptoms in connexion with the artery were developed twenty days after the wound, probably from the sudden giving way of the cicatrix in the vessel wall, due to the severe strain received in falling.

A stout muscular man of intemperate habits, aged twenty-seven, was stabbed on the front aspect of the right arm, near its lower third, by a penknife. He also sustained a deep cut above the nose. These injuries were inflicted during a drunken brawl on Dec. 14th, 1886.

On admission there was free bleeding of an arterial nature from the wound, but the pulse at the wrist was not altered in force and volume. The hæmorrhage was readily arrested by bandage and compress. The man was intolerant of treatment or confinement, and left the hospital on Dec. 18th at his own request. There had been no marked return of

the bleeding. He attended irregularly as an out-patient, the wounds on the head and arm healed, and the hæmorrhage seemed to be permanently arrested. On Jan. 2nd the patient resumed his avocation of grinding knives and scissors, but his arm became so swollen and painful that he had to desist. The next day, twenty days since the infliction of the wound, he fell down while skating. Profuse bleeding occurred from the wound again, and he was brought in haste to the hospital and admitted under the care of Mr. Cowell, who kindly transferred the case to Mr. Sheild for treatment. The patient, who had been leading during Christmas-time a life of continuous debauchery, was ill and feverish. His tongue was coated and tremulous, his limbs shaky, and he appeared to be on the verge of delirium tremens. The right arm was enormously swollen, hard, tense, and somewhat discoloured. No pulsation or bruit could be detected over the swollen parts. The hand was œdematous and cold, the radial pulse completely absent. The patient complained of terrible pain in the limb, and said the hand felt "numbified." On removing the temporary compress, a jet of blood the size of a small quill issued in a continuous flow from the punctured wound. This blood was venous in colour, and pressure on the artery above lessened but did not check its discharge. The patient being anæsthetised and Esmarch's apparatus lightly applied, the opening was enlarged, and the finger passed into a large irregular cavity, full of soft, warm clot. This was freely laid open by an incision some four inches in length along the inner side of the biceps muscle, and a quantity of clot sponged away. The parts were so disintegrated that the source of the bleeding or the position of the main vessel could not be accurately determined. A bent probe was employed as a searcher, and this device was soon successful, the end of the instrument passing into an opening in what was evidently the brachial artery. The aperture was transverse and clean cut, and would have admitted the end of a No. 8 catheter. It was situated at the upper part of the middle third of the vessel. The median nerve was clearly seen, and held away, while the artery was tied with carbolised silk above and below the wounded part. The large cavity was then dusted with iodoform, and lightly packed with gauze, being left quite open. The whole limb was wrapped in wool and bandaged evenly.

The after progress of the case was satisfactory, and can be briefly related. A large amount of sero-sanguineous discharge poured from the wound. The limb rapidly diminished in size, and the constitutional symptoms of fever and pain soon subsided. The day after the operation the patient repeatedly expressed his relief from its performance. On the third day after the operation, when the wound was being dressed, smart bleeding occurred. The source of this was a small arterial twig obviously enlarged by the collateral circulation. A ligature was easily applied in the open wound, and no further bleeding occurred. The hand felt numb and powerless for several days, but the circulation was active, and a radial pulse was established on the tenth day. The ligatures separated on the sixth and fourteenth days. The wound was practically healed on the thirtieth day after operation, being gradually brought together by bandaging. The incision, which seemed so extensive in the swollen condition of the parts, was not more than two inches and a half long when the arm had resumed its normal dimensions.

Remarks.—The first point of interest in this case is the fact that the radial pulse remained unaffected, though the brachial artery was badly cut. Most surgeons are familiar with similar instances. Provided that an artery be not completely divided, a small portion of it seems sufficient to guide the blood into the distal part of the injured vessel. The sequence of events observed here not uncommonly occurs in wounds of the main vessels treated by pressure. The orifice in the vessel is temporarily sealed by clot and the pressure of surrounding tissues; some accidental movement displaces these frail barriers, and fresh bleeding takes place externally or into the tissues of the limb. The latter variety is much to be feared, for, in addition to the loss of blood, the patient has to combat the danger of gangrene caused by the pressure of the extravasation, and the surgeon may be misled by the absence of external bleeding. This variety of hæmorrhage reminds one of the concealed or "occult" bleeding spoken of by obstetricians. Still, the fact must not be lost sight of that a considerable number of cases of punctured wounds of the main vessels can be perfectly treated by pressure. But the surgeon who undertakes this must be careful that the pressure is applied properly, and he must be assisted by quietude and tolerance on the part of the patient. The colour of the blood when the hæmorrhage recurred was venous rather than arterial. The plan of searching for the orifice into the artery, after laying open an aneurysm or hæmorrhagic cavity by a probe or catheter, was very successful in the present instance. The great use of Esmarch's apparatus and the importance of making a very free incision in these cases are well exemplified. The course adopted in leaving this deep wound quite open was justified by the free drainage of serum which took place from its extensive cavity. Had the margins of the wound been united, retention of inflammatory products and tension, with its attendant evils, must have resulted. It is an important consideration that in punctured wounds of a limb the main vessels may be injured, and yet the wound caused by the entrance of the instrument be far removed from the known course of the vessels. Thus a stab on the front of the lower third of the thigh may wound the femoral artery near the adductor opening. In the present case the knife had passed obliquely from without upwards and inwards through the biceps muscle, and its point had notched the brachial artery in its middle third.

NORTH-WEST LONDON HOSPITAL.

STRICTURE OF THE URETHRA PRESENTING UNUSUAL DIFFICULTIES; REMARKS.

(Under the care of Mr. MAYO COLLIER.)

FOR the notes of this case we are indebted to Mr. Cecil Christopherson.

Edward S——, aged thirty-one, railway porter, was admitted on the morning of September 5th suffering from retention of urine. He had come from Leeds the day previously, and since then a few drops of urine only had passed. Four years ago he had a similar attack, and was admitted into the Leeds Infirmary, under Mr. Jessop, who with great difficulty passed an instrument. Since then he had suffered from more or less inability to micturate. Fifteen years ago he had gonorrhœa. The patient is a big, burly, muscular fellow, of fair complexion and nervous temperament.

Mr. Collier was not able to see the case until twelve hours after admission. In the meantime hot baths and opium had been administered freely, but without effect, by the house-surgeon, and an attempt had been made with the catheter, but unsuccessfully. Owing to the delay the bladder was extremely distended, and the patient was suffering much from pain and nervous anxiety. He was now removed to the operating theatre, and a careful and prolonged attempt made with fine soft metal instruments, still without success. Judging that further delay was unwise, the bladder was aspirated with a long fine needle, the precaution being taken to pass the instrument well into the bladder in the direction backwards and downwards before removing the stylet. By these means some fifty ounces of urine were drawn off, with great relief to the patient. A dose of opium was followed by a good night and no pain or discomfort in the site of puncture. The temperature was normal. Next morning, no urine passing and the feeling of discomfort recurring, a hot bath, chloroform, and a second attempt with fine metal instruments was made. Catheterism having failed, it was decided to again aspirate and to relieve the bladder entirely by aspiration for the next few days, leaving the stricture absolutely alone. During five successive days the aspiration was repeated six times in all, very little urine during this time escaping by the urethra. On the fifth day chloroform was again administered, and after considerable delay and trouble a No. 1 metal catheter was passed into the bladder, and twenty-five ounces of fluid removed. The catheter was very tightly grasped, and required considerable traction or pressure to move it either in or out. The instrument was tied in and left *in situ* for four days. Afterwards an attempt was made to replace the No. 1 by a No. 2. The No. 2 would enter the stricture, but could not by any ordinary pressure be made to enter the bladder. No. 1 was now reinstated and left *in situ* for a week. The patient was comfortable during this time, and the temperature remained normal.

Sept. 14th.—The patient's temperature this morning at 8 A.M. was 100·6°. He seemed poorly. At 10·30 A.M. he had a severe rigor, and the temperature rose to 104·4°. Mr. Harper, the house-surgeon, attributing the rigor to the presence of the catheter, removed it, and administered ten grains of quinine.

15th.—The patient can pass some urine with much straining. Feels very uncomfortable. Temperature 102·6°.

16th.—Some pain and hardening was discovered in the floor of the urethra, two inches from the meatus.

17th.—The patient is very uncomfortable and the bladder full. Temperature 101·6°. After a hot bath and opium the distension of the bladder was relieved naturally.

18th.—The swelling under the penis, which was very painful and tender, was opened; pus came from the wound and also from the meatus.

9th.—Temperature normal. Great straining to pass a small quantity of urine; it mostly passes through the fistula; the bladder, however, does not fill.

The patient was now left completely alone to Oct. 1st, when a No. 1 silver instrument was passed with the same difficulty as on the first introduction. At 11 P.M., eight hours after the introduction, the patient had a rigor lasting an hour and a half, the temperature reaching 105·2°. Acting on instructions, the catheter was not removed by the house-surgeon, but large doses of quinine and hot drinks were administered.

Oct. 2nd.—At 10 A.M. the patient had another severe rigor; temperature 105·2°. At 4 P.M. there was another severe rigor, temperature reaching 105°. Mr. Collier removed the catheter.

3rd.—No further rigor; temperature normal; patient comfortable; urine passed frequently, but in small quantities.

4th.—Just one month after correct, careful, and assiduous treatment the stricture would only admit No. 1 instrument with difficulty, the introduction being invariably followed by severe rigor. The stricture was now also complicated by a penile fistula, through which most of the urine passed.

Mr. Collier now decided and explained to the patient that further attempts to dilate with the catheter were inadmissible and dangerous; that the proper course was to divide the stricture if possible from the inside, and, failing that, to cut through it from the outside. He fully understood the gravity of his case, but refused an operation, and was discharged on Oct. 14th and returned home. On Oct. 16th he returned and requested an operation.

On Oct. 21st Mr. Krohne procured a very small urethrotome of the Civiale pattern. After injecting the urethra with a 20 per cent. solution of cocaine, and subsequently with olive oil, Mr. Collier introduced his left forefinger into the rectum to the point of constriction, which could be easily made out in the membranous portion of the canal. With this finger the stricture was steadied. The urethrotome was next introduced, and an endeavour made to insinuate it into the stricture. By firm pressure, assisted by a peeling action of the left middle finger, the urethrotome was passed. The knife was now unsheathed, and the stricture completely divided in a direction upwards. The blade was again sheathed, reinserted, and again drawn through any opposing bands. There was free hæmorrhage. A No. 10 soft catheter was at once introduced without the slightest opposition, retained, and a suppository of half a grain of morphia placed in the rectum. No rigor or elevation of temperature followed the operation.

The subsequent progress of the case was most satisfactory. The fistula healed rapidly, and the patient left the hospital on Nov. 6th, just two months after his admission, with the calibre of the urethra completely restored, and feeling, as he expressed himself, "quite well, but weak."

Remarks by Mr. COLLIER.—This case is replete with points of interest, but two stand out more prominently than the rest. In the first place, six aspirations on five successive days were the whole and sole means of emptying the bladder of its contents. These tappings were not followed by the slightest pain or bad result. Aspiration of the bladder, if properly performed, is seldom dangerous. I have resorted to it on several occasions without the slightest bad effect. In the second place, although the presence of a No. 1 catheter in the urethra caused an intense rigor, the free division of the stricture was not followed by the smallest bad result.

MANCHESTER ROYAL INFIRMARY.

PERINEAL AND SUPRAPUBIC CYSTOTOMY COMBINED; REMARKS.

(Under the care of Mr. WHITEHEAD.)

J. C——, aged fifty-seven, engineer, was brought by Dr. Spearing, of Shaw, on Feb. 16th, 1887, and admitted on the following day suffering from severe pain in the region of the bladder, profuse hæmaturia, and incessant desire to micturate. The first indication of his present illness occurred ten months ago, when, without any warning or pain, "he passed three pints of what appeared to him pure blood." From that time the urine had almost constantly contained quantities of blood. He gradually became thinner and more feeble, and at the time of his admission he appeared in the advanced stage of malignant disease. The urine, on standing, gave a thick reddish-brown deposit, which on microscopic examination showed transitional epithelium, numerous fat-globules, red blood-corpuscles, leucocytes, crystals of uric acid, and oxalate of lime.

On Feb. 18th, an attempt was made, in the first instance, to explore the bladder by a lateral perineal cystotomy, but owing to the depth of the perineum the index finger only reached the entrance, but not the interior, of the bladder. Bidigital counter-pressure—one finger in the wound and the other hand above the pubes—demonstrated a solid growth associated with the right wall of the bladder. Suprapubic cystotomy was then performed, and the diagnosis which had previously been made of a malignant growth confirmed. No attempt was made to remove the tumour. The patient died on Feb. 24th, the sixth day after the operation.

At the necropsy a tumour was found which occupied the right half of the bladder and deeply infiltrated the surrounding tissues. The surface of the tumour was extensively ulcerated. The right kidney was atrophied, its parenchyma had almost entirely disappeared, whilst the pelvis was very much dilated. The corresponding ureter was much dilated, and its opening into the bladder impeded by the growth. The left kidney was considerably enlarged, but appeared healthy on section.

Remarks by Mr. WHITEHEAD.—Sir Henry Thompson has expressed his opinion that pain, and not hæmorrhage, is the usual premonitory symptom of malignant disease of the bladder; in this case, and in every other instance of malignant disease of the bladder coming under my personal observation, the reverse has been the case. The difficulty found in introducing the finger into the bladder through a deep perineum is unfortunately a condition not unfrequently met with. The obstructed ureter and atrophied kidney are an unusual result in malignant disease of the bladder, it being generally found that the growth does not encroach upon the ureters to the extent of total obstruction. The pain was considerably in excess of that generally met with in malignant disease of the bladder, but was no doubt due to the bladder being adherent on the right side to adjacent structures, thus preventing the muscles from exercising their contractile power, and causing the neighbouring parts to be dragged upon in the constantly recurring efforts to micturate. The fixed condition of the bladder was also responsible for another feature. The bladder was moderately distended previous to the operation, but none of the fluid came away when the perineal incision was made, nor even after the finger had passed through the prostate; but directly the bladder was opened above the pubes the fluid in the bladder rushed out of the perineal wound, as well as through the wound above the pubes, illustrating in a graphic manner the necessity and great advantage of counter openings when free drainage is the object desired.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Rectal Intussusception, due to a new growth; Excision of Intussusception; Enteroraphy; complete recovery.—Experimental Inquiry as to the best method of Enteroraphy.

AN ordinary meeting of this Society was held on Tuesday last, Mr. G. D. Pollock, F.R.C.S., President, in the chair.

Mr. A. E. BARKER communicated a case of Intussusception of the Upper End of the Rectum due to obstruction by a new growth, in which complete recovery ensued, after excision of the intussusception and suture of the cut ends of the bowel. The case narrated is that of a married woman aged twenty-eight, who for sixteen months had noticed streaks of blood with her motions, and for eight months had been conscious of a foreign body in her rectum. Two or three months before operation the latter

had begun to prolapse at each stool with copious bleeding. There was much constipation, but there had never been any diarrhœa. On examination of the rectum in June, 1886, a mass of new growth was found surrounding nearly the whole of the apex of an intussusception of the rectum. The reflexion of the rectal wall could be felt about three inches from the anus, so that the apex of the mass belonged to a spot about six or seven inches from the latter. On June 9th Mr. Barker drew down the intussusception and operated as follows:—The left index finger was passed well into the intussusception and the two layers of bowel were pinched together beyond the growth between the finger and thumb. An ordinary sewing needle, carrying stout carbolised silk, was then passed through the two layers from the intussuscipient into the lumen of the intussusception and returned, including about one-sixth of an inch of bowel tissue. This loop was tied firmly, and another stitch was similarly introduced, about one-sixth of an inch from the first, and tied in the same way. By repeating this the whole bowel was encircled with a row of stitches well above the growth. When this had been done, a second row was similarly introduced about half an inch higher up. The whole intussusception was then cut away *en masse* immediately below the lowest row of stitches. Only one small vessel bled, and was tied; the rest of the cut surface was dry. The mass cut away consisted of a nodular mass of adenoid epithelioma, taking up about two inches of the bowel, and with a margin of healthy tissue above it. The patient's recovery was rapid and uninterrupted. A large motion was passed on the sixth day. The patient left the hospital about four weeks after operation feeling quite well. The rarity of intussusception of the rectum is discussed and some statistics are given. The rarity also of intussusception of the lower bowel produced by cancerous growth is alluded to, the author having only been able to collect eleven such cases. These are briefly described, six of them being either purely rectal or in the sigmoid flexure. Of these six, only four were operated on; the first two by Verneuil, but both with a fatal result. The next excision was performed by Kulenkampff with an ultimately good result, but a loop of small intestine had been opened in excising the intussusception and a provisional colotomy had to be done. The case now related is the fourth.

Mr. STANMORE BISHOP's paper on the Results of an Experimental Inquiry as to the best method of restoring the Canal after removing Portions of the Small Intestine was communicated by Sir Spencer Wells, Bart. The question was discussed as to what an ideal suture should be, and reference made to all those now in use; the suture devised by the author was described. The results of some experiments on animals were detailed. A perfect method of enteroraphy requires: Absolute and perfect apposition. Restoration of the *status quo ante* of the calibre of the bowel. The surgeon must not leave any unnecessary sign of his interference behind him. The two serous surfaces must be brought face to face together. The various methods of enteroraphy were described and figured in a paper by Mr. S. Bishop in the *Medical Chronicle* of 1886.—Mr. T. HOLMES mentioned a case of intussusception in an infant which was constantly recurring and being reduced. The child died, and many polypoid tumours were found in the intestine besides the one that caused the intussusception.—Mr. HARRISON CRIPPS rather agreed with Mr. Holmes that cases of intussusception of the kind in question were not rare. Perhaps one case in six of annular malignant disease of the bowel was attended with an intussusception, which, however, did not advance and could not be pulled further down. Reference was made to the case of a lady in which the growth was with difficulty reached, the posterior part of the rectum having to be divided, and then, after some dissection, the whole growth, the size of a two shilling piece, was removed with both layers of the muscular coat, leaving only the peritoneum. He thought Mr. Barker's operation was one of extreme interest.—Mr. CHRISTOPHER HEATH was quite sure that any operation than that done by Mr. Barker would not have been successful. Neither the suggestion of Mr. Holmes nor of Mr. Cripps would have been sufficient, for the growth was a large, ragged, sessile tumour, nearly the size of the palm of the hand. He was agreeably surprised to find what an excellent recovery had followed the operation. Such an operation seemed to show that greater liberties might be taken with the mucous membrane of this part than had hitherto been supposed. Mr. Whitehead's method of treating piles also pointed to the same conclusion. How would Mr. Barker deal with a case which could not be drawn out of the anus? With a growth higher, up would laparotomy or what operation be best?—Mr. A. E. BARKER said the growth infiltrated the coats of the bowel, rendering a mere excision of the growth impossible. To dissect off the growth would be an unsatisfactory method in the case of a malignant neoplasm. It would be preferable to remove the whole of the intussusception. In reply to Mr. Heath, he said he should certainly perform laparotomy and excise the whole mass of the intussusception. He would search for the upper part of the intussusception and employ Czerny's suture for a row of stitches, and afterwards cut off the intussusception, thus imitating nature's method of sloughing. He thought that there was a good deal in Mr. Bishop's method of suture.—Mr. F. TREVES said that Mr. Barker's case was the most deliberate, complete, and successful operation of the kind on record. He made three classes of cases in which intussusception and cancer become combined. The first was an annular cylindroma forming an obstructing ring, and this forms a commencing intussusception. The second kind was made up of cases of chronic intussusception which develops into an epithelioma. The third class was composed of cases where an ordinary polypus, having produced an intussusception, becomes a cancerous growth. Mention was made of the case of a woman, aged forty, with chronic intussusception, in which unsuccessful attempts to draw it down to the anus were followed by removal with a galvanic wire; the lumen was restored, and the patient remained comfortable for a while. The return of obstruction was relieved by a lumbar colotomy, and no less than eleven polypi were removed at the operation.—Sir SPENCER WELLS thought that as Mr. Bishop's knots and suture did not irritate the peritoneum, and when separated the stitches fell into the cavity of the bowel, a great advance was made in abdominal surgery. He considered that the result of Mr. Bishop's experiments was a complete argument to those who objected to the funds of the Royal College of Surgeons being employed for legitimate vivisection.—Mr. CROFT compared the suture recommended by Mr. Bishop with that of Lembert, and thought that it might have disadvantages, for the stitches were so close together that the suture might amount to a circular stricture of the bowel, and possible cutting off of the blood supply. He would be sorry if everyone set this suture down as an absolutely unobjectionable one. The tissues operated upon were those of healthy dogs, whereas in diseased men and women the tissues might prove less tolerant of the suture. Whether the latter fell away into or outside the intestinal canal he considered was a matter of small moment. He admitted that the suture had some advantages.—Mr. TREVES had tried every suture on dogs some years ago, and came to the conclusion that the Czerny-Lembert suture was the most suitable. Time was a great element in enteroraphy, and the old suture was readily manipulated. The bowel of the dog was hard and tough, unlike the thin delicate bowel of the human being. If the stitches were applied tightly enough to bring the bowel well together, the danger certainly would exist of sloughing of the margin of the bowel. Travers' experiments were performed with string and coarse dressings, which sufficiently explained his disasters. — Mr. KNOWSLEY THORNTON said that Mr. Bishop's suture did not favourably compare with Lembert's, for the knots within the bowel were favourable to the absorption of septic material, abundance of opportunity for which would exist, especially in the case of a diseased bowel. He agreed with the remarks of Mr. Treves as to the constriction of the bowel.—Mr. R. BARWELL had employed Lembert's suture in a boy aged seven. The whole of the suture was neatly enveloped in lymph.—Mr. BARKER asked how long the thread was which filled the needle. Passing so many times through the mucous membrane, the thread must become very septic.—Mr. T. BRYANT asked how Mr. Bishop tied the last knots.—Mr. CHARLES JENNINGS did not understand Mr. Treves's objections to experiments on living animals. He (Mr. Jennings) had used cylinders of cocoa butter and gelatine, so as to maintain the lumen of the bowel whilst the suture was being inserted.—Mr. BISHOP, in reply, thought the time of exposure of the bowel far more important than the mere duration of the operation. Experiments could only be satisfactory if performed on living animals. He did not use one thread for the whole operation, but as many as might be necessary, and by reef-knotting the fresh thread on to one end of the single threads of the suture.

OBSTETRICAL SOCIETY OF LONDON.

A MEETING of this Society was held on Wednesday, May 4th, Dr. John Williams, President, in the chair.

Uterine Appendages.—Mr. LAWSON TAIT showed a series of specimens removed on account of inflammatory disease.

Malformation of the Fallopian Tubes.—Mr. ALBAN DORAN exhibited this specimen, in which there was an accessory ostium surrounded with fimbriæ.

Spinal Meningocele.—Dr. JOHN PHILLIPS showed, for Mr. Reginald Clarke, the head of a seven months fœtus, in which there was dystocia, owing to a meningocele between the axis and occipital bone. The child presented by the breech.

Fibro-myoma of the Ovary.—Dr. CARTER said that this tumour, which weighed 10¾ lb., had only been noticed for six months. The patient had made a good recovery.

A pair of Midwifery Forceps were shown by Dr. PARAMORE, for Dr. Haslam, with a lateral hinge in the handle of the upper blade.

A Speculum was exhibited by Mr. BUTLER-SMYTHE which folded like a tongue depressor.

Hæmorrhagic Parametritis.—Dr. MATTHEWS DUNCAN related three cases of severe bleeding in patients with Parametritic Abscess. In the first case the bleeding occurred on opening the abscess, and was easily restrained; the woman recovered. The bleeding was probably only a profuse oozing. The second case he did not see; the bleeding was rapidly fatal and flowed through the bladder, the abscess having spontaneously opened into that viscus. In the third case, also fatal, the bleeding occurred in repeated flows through the bladder, along with pus and sloughs. The bleeding arose from gangrene laying largely open the external and internal iliac veins at their junction. This case he regards as one, not of ordinary parametric abscess, but of progressive gangrene of cellular tissue. Of this latter disease he has recorded a case in an appendix to his work on "Perimetritis and Parametritis."—Dr. GRAILY HEWITT referred to the particulars of a case he had published, and which Dr. Matthews Duncan had mentioned in his paper. It was entirely due to physical injury, and was not at all analogous to the cases of Dr. Matthews Duncan.—Dr. WILLIAM DUNCAN had seen two cases in which, after bursting of the abscess, there was oozing of blood for several days from the pyogenic membrane lining the abscess cavity. He thought that it would have been more correct if Dr. Matthews Duncan had given the cases as hæmorrhage into the sac of a parametric abscess, and deprecated the use of the title "hæmorrhagic parametritis."—Dr. GALABIN had met with a case in which fatal hæmorrhage into a pelvic abscess occurred. The case was originally diagnosed as one of retro-uterine hæmatocele. Suppuration occurred, and discharge through both bladder and rectum. After three months, erysipelas occurred about the vulva, and fatal hæmorrhage into the abscess cavity. Extensive burrowing and sloughing in the pelvic cellular tissue were found at the necropsy.—Mr. LAWSON TAIT had never met with any such cases as those described by Dr. Matthews Duncan, and thought that they ought to be dealt with by abdominal section before such disasters occurred. Mr. Tait thought the title of the paper should have been "Parametritis ending fatally by Hæmorrhage."—Dr. MATTHEWS DUNCAN thought that the title was of no moment, whether hæmorrhagic parametritis or parametritis with hæmorrhage. He knew no reason to regard extravasation of urine as the cause of sloughing, and in a very large number of cases of these abscesses discharging through the bladder he had never met with any evidence of extravasation of urine into the abscess cavity. It might occur, but he knew no evidence of it.

The Frequency of Pathological Conditions of the Fallopian Tubes formed the subject of a paper by Dr. ARTHUR H. N. LEWERS, and was the outcome of observations on the pelvic organs in a series of a hundred cases in the post-mortem room of the London Hospital, made with the view of assisting in the determination of the frequency with which dilatation of the Fallopian tubes—hydrosalpinx, pyosalpinx, and hæmatosalpinx—occurs among the general population. Recently Dr. Henry Coe, in his paper, "Is Disease of the Uterine Appendages as frequent as it has been represented to be?" (*American Journal of Obstetrics*, June, 1886) said: "Actual disease of the tubes is far less frequent than is generally believed." Others, on the contrary, believed these conditions to be of frequent occurrence. Cases where the contents of the dilated tubes were not distinctly purulent, or were not composed of blood, were classed by Dr. Lewers as hydrosalpinx. Disease of the Fallopian tubes, restricting the expression to pyosalpinx, hæmatosalpinx, and hydrosalpinx, was met with in seventeen cases out of one hundred examined. A detailed description of each specimen was given in the paper, which included also a table classifying the chief points of interest in these seventeen cases.—Dr. GALABIN thought this communication was of very great value as an addition to the evidence on the subject by Dr. Kingston Fowler. He wished to ask whether the 100 cases recorded were consecutive or selected, as he thought that 17 per cent. was a large proportion of cases of distension of the Fallopian tubes. In 302 necropsies of women above the age of puberty at Guy's Hospital the pathologists had only found twelve cases of distension of tubes, and two of these were very trivial. This was a proportion of only 4 per cent. There was only one case of pyosalpinx and a doubtful case, the pathologist being uncertain whether two suppurating sacs were tubes or ovaries; the ovaries could not be found. There were fourteen cases of chronic inflammatory disease about the Fallopian tubes without distension. Of the whole twenty-six cases, it was probable that in seven pelvic inflammation was indirectly the cause of death through the medium of general peritonitis, intestinal obstruction, or in other ways. These included the two cases of pyosalpinx, one of hydrosalpinx, and four of chronic inflammation without distension. Thus, in 302 cases there were of chronic inflammatory disease about the tubes 9 per cent., distension of tubes 4 per cent., death indirectly in about 2 or 3 per cent.—Mr. LAWSON TAIT spoke in eulogy of Dr. Lewers' paper. He found the conclusions drawn from the post-mortem room as regards causation, progress, prognosis, and treatment identical with those which he had been preaching for about ten years on the basis of clinical experience. He confessed that it was somewhat a staggering thing to find 17 per cent. of the women who died in the London Hospital suffering from tubal disease, and this did not include those cases which suffered the most, in which there were adhesions between the ovaries and tubes to the surrounding viscera, more particularly the peritoneal layer lining Douglas's pouch, resulting ultimately in complete retroversion of the uterus with its appendages, and forming one of the most dreadful conditions which the gynæcologist had to deal with. When removed, it was difficult for an unskilled pathologist to see anything the matter with them. Dr. Lewers had not included such cases, and they must have been numerous. He thought the explanation of the higher percentage at the London Hospital and the small group at Guy's must be due to locality, and that gonorrhœa was more common amongst the poor at the East-end than on the south side of the river. At the out-patient department at Birmingham 10 per cent. of the women who applied for relief suffered from chronic inflammatory disease of the uterine appendages. All these did not require operation. The most staggering conclusion to be derived from Dr. Lewers paper was the enormous fatality of these diseases. At the London Hospital the death-rate was 24 per cent., while at Guy's it would appear to be 25 per cent. For years Mr. Tait had been arguing in favour of operation in order to relieve suffering, but when the pathologists at the London, Guy's, and Middlesex Hospitals showed a death-rate between 24 and 50 per cent., the cry for relief by operation was one which could not be gainsaid. His own results showed that these cases could be relieved by operation, with a mortality not exceeding 2 or 3 per cent. The question as to the sterility caused by these diseases might be settled by ascertaining the period between the occurrence of death and the birth of the last child. Mr. Tait agreed with Dr. Lewers that hydrosalpinx seems to precede pyosalpinx.—Dr. HORROCKS was surprised at the large percentage of disease of the Fallopian tubes shown in Dr. Lewers' table of cases. He found that in many cases the disease began in the ovary and glued the fimbriated extremity to itself, which led to pathological changes in the tubes. In some cases the affection spread from the vagina to the uterus and from the latter to the tubes. In all his cases there was peritonitis, but in nearly every instance it was a chronic and effete process indicated only by old fibrous bands of adhesion.—Mr. ALBAN DORAN noted that it was remarkable to find some forms of tubal disease so frequent. It must be assumed that milder forms were more common. Catarrh of the tube must involve discharge, which probably escaped through the uterus so as not to produce symptoms. It was

not likely that it escaped through the ostium into the peritoneal cavity, else hydroperitoneum would be more frequent, as he had pointed out in his paper on Papilloma of the Tube. The severe forms of tubal disease with local peritonitis showed how the tubes were a highway from the exterior into the peritoneum. Their frequency amongst the East-end women suggested that they arose more from extension of neglected leucorrhœa and gonorrhœa than from sounding or syringing. Disease of the tubal mucous membrane was more probably caused by the passage of fluids upwards than by extension of inflammation. Extension might occur, but mucous inflammations were generally localised in the genital as in the respiratory tract.—Dr. IMLACH regarded Dr. Lewers' paper as important, and trusted the investigation would be continued, and that pathologists would scrutinise the ovaries and tubes as carefully as they did other organs. The gonorrhœal origin of these diseases was often assumed. He had examined a large number of women in the lock hospitals, but had not found a single example of pyosalpinx amongst them. The question of etiology was important, and could only be settled by clinical investigation of a large series of gonorrhœal patients.—Dr. MATTHEWS DUNCAN expressed his sense of the great value of Dr. Lewers' paper, but felt the want of further information regarding the cases. He wished for information as to the symptoms, if any, caused by the pathological conditions. It was probable that these pathological conditions were obsolete and evidence only of long past disease. This view was confirmed by the ages of the patients. Mr. Tait had said that in his practice the average was twenty-seven to thirty, and Dr. Lewers' cases were above forty on an average, and many quite old. Dr. Matthews Duncan was not astonished at there being evidence of disease in 17 per cent. of the post-mortems, for he had long known that evidence of past or present disease in the region of the uterine appendages was a very frequent occurrence.—Dr. WILLIAM DUNCAN thought it most important that out of the seventeen cases reported, fourteen were over forty years of age, and in only one case were definite symptoms of pelvic mischief given, while almost all died from diseases not attributed to tubal mischief, showing the fallacy of the view that most cases require laparatomy.—Dr. LEWERS, in reply, said that the cases were as nearly as possible consecutive, and that the inquiry lasted thirteen months. There were many cases showing more or less extensive old adhesions not included in his list. He did not think gonorrhœa was more common at the East-end than elsewhere in London, and many of the cases at the London Hospital came from the adjoining districts. He thought hydrosalpinx and pyosalpinx were stages of the same disease, and the cases in his table confirmed this to a great extent. If further investigation should establish this view, and that pyosalpinx has a mortality of 40 per cent., we shall not be able to resist the conclusion that dilated tubes should be removed. None of the seventeen cases of dilated tubes came from the obstetric wards, though some of the 100 cases examined came from those wards.

OPHTHALMOLOGICAL SOCIETY.

Franklin's Spectacles.—Fatal Meningitis after Excision of Suppurating Globe.—Insertion of Artificial Globes into Tenon's Capsule after Excising the Eye.—Night-blindness.—Complete Self-enucleation of Eyeball.

AN ordinary meeting of this Society was held on the 5th inst., Mr. J. Whitaker Hulke, F.R.S., President, in the chair. The President announced that Dr. Samelson of Manchester, had presented a volume of letters of von Graefe to the Society.

Mr. BRUDENELL CARTER showed a pair of Franklin's Spectacles for use after Cataract Extraction. They were made by cementing two small semicircular plano-convex lenses upon an oval of plane glass. Thus, both near and distant vision was afforded, and the spectacles were not heavier than ordinary spectacles. Messrs. Baker, of 244, High Holborn, were the makers.

Messrs. CRITCHETT and JULER showed a case of Peculiar Dotted Appearance of the Fundus of the Right Eye, whether choroidal or retinal they could not say, nor whether it was congenital or acquired; syphilis was probably not operative. There was haziness of the vitreous of the other eye. They also showed a case of a young woman with a rare form of Pigmentary Change in the Retina.—Mr. NETTLESHIP asked how long the condition had probably lasted in the first case?—Mr. JULER said there was slight myopia, but no history of special failure of vision.—Dr. HILL GRIFFITHS mentioned a case of minute dotted appearance of the fundus about the macula in a woman whose sight was defective from abuse of tobacco, but as her sister had a similar change in the fundus he regarded the lesions as of congenital origin.—Mr. W. H. JESSOP said there was pigment in front of the large vessels in the second case, and therefore in the retina.—Mr. JULER admitted that the pigmentary layer was much affected in places.

Mr. ADAMS FROST showed a case of Cystic Tumour in the Orbit of a woman aged thirty-five. It was of two years' duration, the eyeball being merely prominent till six months ago, when a soft swelling appeared at the upper and inner angle of the orbit beneath the skin of the upper lid; the cyst was punctured but yielded nothing.

Mr. ERNEST CLARKE showed a set of Artificial Eyes made by Maw, Son, and Thompson, at the inexpensive cost of 3s. each.

Mr. W. J. COLLINS showed a case of Cholesterin in the Vitreous in a man aged sixty-six, probably primary, the right eye being alone affected. Such a condition might disappear according to von Graefe.

Mr. W. J. COLLINS also exhibited a living specimen of Exophthalmos with Opacities of the Lens in a young woman, with marked palpitation but no goitre, though a small one had been present a year ago. Von Graefe's and Stellwag's signs were absent.—Mr. NETTLESHIP said there was slight ptosis of right side, in which the disease began, the reverse of what was usually seen.—Mr. COLLINS thought the ptosis might be due to congestion, for it was variable in degree.

Mr. LANG read notes of a case of Fatal Meningitis following excision of a suppurating globe, and causing death in forty-eight hours. The necropsy revealed extensive suppurative meningitis.

Mr. LANG also read a paper on the Insertion of Artificial Globes into Tenon's Capsule after Excising the Eye. He had employed this plan after finding that Dr. Mules's operation for evisceration and an artificial vitreous was unsatisfactory. The operation consisted in inserting a hollow globe of glass, celluloid, or silver into Tenon's capsule, and then closing the capsule by a set of deep sutures, and the conjunctiva by a superficial set, both of silk; the deep ones were not removed. A horse-hair drain placed under the deep sutures and an iced pad to the lids prevented pain and swelling of the lids and conjunctiva. In sixteen cases not one had suppurated; this was probably due to the antiseptic precautions which were taken—namely, to irrigate the conjunctival sac before excising the eye, again after the excision (and this brought Tenon's capsule plainly into view), and finally when the operation was completed. He advocated the operation, as it had all the advantages of Dr. Mules's operation without any of its disadvantages.—The PRESIDENT had never met with a fatal case after excision of a suppurating globe. Was extension of the inflammation brought about by the application of a too firm compress? Fluids in the orbit might conceivably in this way be driven back. Would it not be better to treat such a case as in an ordinary wound, and leave the orbit quite free from pressure?—Mr. NETTLESHIP remarked that the meningitis might have preceded or accompanied the suppuration of the eyeball, and he therefore asked whether there was any fever before the operation or other indications of a similar significance.—Mr. BRUDENELL CARTER said that Sir Wm. Bowman had thirty years ago condemned the extraction of the capsule of the lens from the eye as a certain cause of cyclitis &c. In operation on the eye he always soaked his instruments in alcohol, a useful precaution against septic infection, he believed. Following von Graefe, he never excised an eye in a case of suppuration.—Dr. BRAILEY was of opinion that evisceration was the best method of treatment of suppurating eyeball. The occurrence of suppuration was, perhaps, not often due to inoculation with germs on instruments, but had more to do with the general condition of the patient. He thought it was more reasonable to suppose that a more beneficial effect and less chance of spread of the suppuration to the meninges would be obtained if the sclerotic were left, than if the capsule of Tenon was the only barrier.—Mr. ADAMS FROST confirmed all Mr. Lang had said in favour of his operation as compared with that of Dr. Mules. His own operation had not been so successful as Mr. Lang's.

His plan was to unite the muscles with Tenon's capsule and the conjunctiva over the globe; the hæmorrhage was sometimes very troublesome. He thought that removal of the sclerotic was an additional safeguard.—Dr. MULES had had upwards of one hundred cases of evisceration without any cause for anxiety; the cases were kept in about twelve days. There had been no sympathetic disease, nor had there been any difficulty in cleaning out the interior of the globe.—Mr. JESSOP thought that the capsule of Tenon would get worn away by the foreign body; the sclerotic (as in Dr. Mules's operation) was the only tissue in the body of sufficiently low vascularity to withstand the irritation of a foreign body.—Dr. LITTLE said that he sometimes enucleated and sometimes eviscerated; the latter when he had good reason to believe that the back part of the eye was not involved in the disease. He did not use or advise the employment of an artificial vitreous for fear of irritation resulting.—Mr. F. R. CROSS said that evisceration was a not altogether successful operation, for it was uncertain whether a sinus or fistula might appear after the introduction of the artificial vitreous; and the thin conjunctival membrane between the artificial vitreous and the glass eye would be sorely tried. He concluded that the old operation was the best still, especially if some means could be devised to keep the lower eyelid firmly against the glass eye.—Mr. BRUDENELL CARTER had performed Dr. Mules's operation about twenty-five times. He had seen difficulty arise from the wound not uniting properly. He thought it an excellent and safe operation. — Mr. NETTLESHIP had performed Mr. Frost's operation five times; twice successfully, but in one of these the globe had become displaced.—Mr. LANG, in reply, said the lens capsule was very tough and quite loose, and required no force in its extraction. He did not believe in the absorption of soft tissue by a foreign body. Gaping of the wound was due to the use of too large a globe.

Mr. NETTLESHIP narrated four cases (in two families) of Night-blindness of long standing, and apparently at present not increasing, in which a number of very small, scattered, white spots were present at and behind the equator of the fundus, evidently caused by deposit, not by atrophy. In none of them were there any of the appearances of common retinitis pigmentosa, though there was pigment disturbance of a somewhat different kind towards the periphery in some of them. The patients were grown-up girls.

Mr. MACKINLAY narrated a case in which a woman had wrenched out her left eye with a meat-hook. She was thirty-nine years of age at the time, and had had several children in rapid succession. She was suckling a baby three months old, and had been much depressed for three or four days before the occurrence. The optic nerve had been snapped off close to the commissure. She made a rapid recovery. The only case he knew of was one recorded by Mr. M'Hardy in the last volume of the Society's Transactions.

THE GENERAL COUNCIL OF MEDICAL EDUCATION & REGISTRATION.

TUESDAY, MAY 10TH.

SIR HENRY ACLAND, PRESIDENT, IN THE CHAIR.

AT the meeting of the General Medical Council on Tuesday last, the PRESIDENT delivered the following opening address:—

At the close of the last session the Council did me the honour of desiring that I should retain office until we could with advantage meet to further consider the relation of the Apothecaries' Societies to the Royal Colleges of Physicians and Surgeons in England and Ireland, and the consequences which would arise should they fail respectively to combine for examination purposes. I find myself, therefore, once more called upon by your favour to open another session of the Council. In the discharge of that duty I shall state very shortly the chief business which is before the Council. I shall offer a summary of the proceedings which relate to the action of the Colleges and the Apothecaries respectively, and then, before I retire, shall request you to permit me, as my last act, to join you in recording the sense we all have of the blessings this country has enjoyed during the eventful reign of the Queen and Empress of this united empire. First, then, and briefly, as to the business, exclusive of the combination question. This is already for the most part set forth in the programme now on the table. Through the activity of your committees, their reports afford ample scope for prolonged attention, but also through the carefulness of the reports each subject can be rapidly, as well as clearly, dealt with. It would be an improper employment of time were I to give any account of the several reports on procedure, income and expenditure, or practical education, in the consideration of which I shall be unable to share. The Council will doubtless desire that I shall pass at once to the question of the combination of the three licensing corporations in England and Ireland respectively. First, I would ask that the several communications from the four Colleges and the Societies of Apothecaries, which are upon the programme, may be received and entered upon the Minutes. I will offer such short commentary upon them as may lay the whole case, as I understand it, clearly before you. I will then report the little that it has been in my power to do in furtherance of the Council's wishes. First, as to the case of England. The letter which was read to you at the last meeting was forwarded to the four Colleges on February 25th. Replies were received from the Royal College of Physicians of London on March 23rd, and from the Royal College of Surgeons of England on April 2nd. No desire was expressed by either of the Colleges for an interview. It was clear from semi-official information which I received that if an interview were obtained with the College of Surgeons it would be useless for the object of the Council. I did not therefore press it. With respect to the College of Physicians the case was different. Having been for nearly forty years a Fellow of that body, I was, in my judgment, bound in that capacity to attend the meeting when the subject would be discussed. Accordingly, on March 21st this was done. What passed I am not at liberty to relate. Discussions are held to be *secreta collegii*. But I may just say that it seemed to be a duty to endeavour to disabuse the College of a charge which had been privately made to me, that, in the judgment of many Fellows, the Medical Council had gravely outstepped its duties by addressing the College on the subject. As a Fellow, I do not hold that opinion; whether it was largely entertained, I cannot say. That it was held, by whomsoever held, on an imperfect conception of the position of affairs, cannot reasonably be doubted. Since the time when the Colleges declined to admit the Apothecaries' Society, that body had applied to the Medical Council for examiners under the Medical Act, 1886. The Council, as well as the Colleges, had at various times declared in favour of union between the licensing bodies in England, inclusive of the Apothecaries' Society. If there was any chance still left of union, the Council was clearly bound not to appoint the examiners and thus erect the Apothecaries at once, and *de novo*, into an independent licensing corporation. It was a case in which precipitancy was to be with the utmost care avoided. We were deciding upon a momentous education question of the future. The answer which you have now received must be accounted as final. A simple question therefore remains. The Apothecaries apply again to you through a new motion (Programme, No 12) for examiners. To this application a reply must now be given. An endeavour will be made to traverse the direct answer by means of a motion by Professor Struthers. This motion makes it my duty to make certain statements for the information of the Council. Very opposite opinions have been pressed upon me since we last met—as, for instance: (1) That the Council should certainly refrain from appointing the examiners, and should leave the onus of the decision to the Privy Council. (2) That the Council is bound, both in honour and by the principles of law, to carry out the alleged intention of the Legislature by the Act of 1886 and to appoint examiners. (3) That it will be injurious to the public interest that the Apothecaries should continue to exist as an examining body. (4) That it will be a real advantage to retain them side by side with the two corporations and the Universities, in order that excessive and unnecessary scientific examinations may not be imposed on every medical student. I have noted that some who used to wish the Apothecaries to be "extinguished" now hold the opposite opinion. (5) That if the Medical Council do not grant the examiners, the Privy Council will certainly not override your decision. And, lastly, (6) that the Privy Council will certainly, in the case of your refusal, direct you to appoint examiners, and, if you then decline, will

appoint them against your judgment. If this be so, the Privy Council will be acting in the unquestioned exercise of its powers under Clause 19 of the Act of 1886. In what proportion these opinions, and others which have been pressed upon me, weighed with the English Colleges cannot be stated, since they do not assign their reasons for not consenting to form one Corporation Examining Board for England, and in this simple way bring to a close a long and tedious discussion. To you, therefore, or to the Privy Council, is left the decision whether to perpetuate or to extinguish an examining body which for seventy years has rendered the State acknowledged services. I should not have ventured to trouble you with these divergent and hearsay statements but as an introduction to what follows. Since we parted, it appeared to me to be a duty to learn, as far as I could, the legal view of our position—subject, of course, to the uncertainty of all opinion not resting on judicial decisions in a court of law. I gather that the Council would probably be advised that they will fail in a statutory duty if they refuse to appoint the examiners. It is true that under the Act of 1886 the Council has power to refuse. "It shall be lawful for the General Council, if they think fit, on the application of (a) corporation, to appoint any number of examiners to assist at the examinations" (Clause 5). But then, by Clause 19, "*if it appears to the Privy Council*" that "occasion has arisen for the General Council to appoint assistant examiners," "the Privy Council may notify their opinion to the General Council"; and if the General Council fail to comply with any "directions of the Privy Council" relating to such notification, the Privy Council may themselves give effect to such directions." The Medical Council is therefore powerless to prevent the appointment of examiners. Its decision must rest, not on the question whether the new examining board of the Apothecaries would be adequate or inadequate, but on the general question of policy or vested interests in respect to an old corporation. It is clear that the Legislature has carefully guarded these interests by giving a right of final appeal to the Privy Council. By refusing examiners, the Medical Council would propose a policy, but that only provisionally. If it grant examiners, it becomes the complete guardian of the examinations, because it would both appoint the examiners and send its inspectors. It cannot therefore be alleged that the Apothecaries' examinations will be inadequate, if they continue to exist. It may be said they are unnecessary. The Legislature has implied that the Apothecaries have rights. If we refuse these, they appeal to the Privy Council. That body will, on a review of the whole case, interpret, as it sees fit, the intentions of Parliament by the Act of 1886. As regards the Apothecaries in Ireland, the case may be more shortly stated. A direct legal issue has been raised by the College of Physicians. You have before you the statement of the College of Physicians of Ireland (March 19th and 21st), the letter of the College of Surgeons (March 24th), and recently a further letter from the College of Physicians, dated April 26th, and opinions of counsel forwarded by the Apothecaries' Society of Ireland, dated May 5th. From these documents three special conclusions may be drawn:—1st, that it (the College of Physicians) uncompromisingly decides against any combination, alleging that the Apothecaries cannot grant a licence in medicine, and therefore no body can combine with the Apothecaries; 2nd, that they therefore dispute the power of the Medical Council to grant supplemental examiners to the Apothecaries; and 3rdly, that the College of Surgeons, in its judgment, propose to incorporate the Apothecaries with themselves for examination purposes, without the Physicians, rather than that the Council should give the Apothecaries a permanent and independent position by granting the examiners. It is here necessary to observe that the Council has before it the opinion of the Attorney-General, the Solicitor-General, and Mr. Muir Mackenzie, that under the Medical Act of 1886 the licensing bodies can combine without the sanction of the Medical Council, and not, as heretofore, under conditions to be approved by you. By this opinion the Surgeons and Apothecaries of Ireland can combine, if the Apothecaries can combine at all, without your consent or that of the College of Physicians. I cannot conclude this sketch of an important subject without thanking the Irish members of the Council for much assistance in this matter. I need not longer detain the Council. There is much to be considered during this session, and my medical advisers forbid me to share it. Indeed, I feel assured that, in your interest, I should, for the last time and with deep regret, bid you farewell. This I do with an earnest prayer for the steady progress of the scientific, humane, and national work which Parliament has laid upon you. I trust, however, you will allow me, before I quit the chair, to propose for your consideration a humble address to the Queen. The two surviving members of the original Council may thus join you in discharging a welcome and touching duty to a Sovereign who is full of sympathy for the sufferings we have to prevent and to alleviate, and greatly beloved by all her loyal people. (Applause.)

Mr. MARSHALL, in moving that the President's address be entered on the Minutes, said he was sure the members would desire to express to him their extreme pride and gratification as to the manner in which he had discharged the duties of his office for so many years, and their deep regret that his physical health should compel him to relinquish his post. The address which he had just delivered would be an excellent guide to the Council through the labyrinth of questions which seemed to be pressing urgently for solution.

Sir WILLIAM GULL claimed the privilege of seconding the motion. He had known the President forty-eight years, and he had never met with anyone who had so thoroughly devoted himself to duty—to which, indeed, he had sacrificed every other consideration.

The motion was unanimously agreed to.

Mr. SIMON moved that the following address be engrossed and presented to Her Majesty:—

To Her Most Gracious Majesty Queen Victoria, Queen of Great Britain and Ireland, Empress of India.

May it please your Majesty,—We, the General Medical Council of Education and Registration of Great Britain and Ireland, humbly tender our loyal congratulations to your Most Gracious Majesty on the approaching completion of the fiftieth year of your Majesty's reign. Having been appointed by Act of Parliament to take steps for enabling your Majesty's subjects to distinguish between those who are, and those who are not, qualified by education and character to practise medicine in your dominions, we have had the opportunity of noting the progress which has been made during your Majesty's reign in the science of medicine, especially in its bearings on the health of the nation. The progress of education and the improvements in the practice of all branches of medicine, civil and military, have been great during the last fifty years. Towns have been rendered more healthy; rural dwellings have been improved; dangerous occupations supervised; medical officers of health and public analysts appointed; excessive hours of labour regulated; the treatment of the sick poor in our workhouses amended; and asylums for mental diseases carefully organised. In all these improvements medicine and medical education have had a large share. To these subjects the lamented and illustrious Prince Consort gave earnest attention, as evinced by the interest he took both in the erection and administration of model dwellings and hospitals—institutions which have also been the objects of your Majesty's solicitude and sympathy. We desire further to express our sense of the obligation under which the nation lies to all the members of your Royal House, who, treading in the steps of their Royal parents, have constantly shown, by numerous acts, their desire to promote the sound progress—scientific, educational, and practical—of every department of rational medicine. For these, amongst other reasons, bearing on the general welfare, we have special cause to join our fellow-subjects throughout the empire in thankfulness to the Almighty for the blessings of your Majesty's reign. We fervently pray for your Majesty's continued peace, well-being, and happiness.

We have the honour to be your Majesty's dutiful and loyal subjects.

Dr. H. WATSON seconded the motion.

Sir WILLIAM GULL, in supporting the motion, said that Her Majesty not only deserved the respect and affection of her subjects, but she had special claims on the medical profession, to which she had ever been thoroughly loyal, never countenancing quackery or anything leaning towards irregular practice.

The motion was agreed to.

The PRESIDENT then retired from the chair, expressing his earnest desire for the progress and well-being of the Council as long as it and England lasted.

Dr. QUAIN was requested to occupy the chair during the discussion on the election of the President. He said he was sure that the Council would desire to pass a hearty vote of thanks to the retiring President for his long and valued services.

Sir WILLIAM TURNER seconded the motion. The late President, he said, had always performed his duties in the spirit of a kindly gentleman, never once losing his temper.

Mr. MACNAMARA desired, as one who had perhaps tried the President's temper sorely, to support the motion, and suggested that an address should be drawn up and presented to him on his retirement.

This was agreed to, and a committee was appointed to draw up the address.

Dr. QUAIN said that the duty now devolved upon the Council of electing a president from among themselves, as

required by the Act of Parliament. There were no rules given for the election, and the Council would have to decide whether it should be by ballot or otherwise. A precedent would thus be established to regulate future elections.

Strangers were then requested to withdraw, and the Council deliberated in private on the subject of the election.

On the readmission of strangers, Dr. QUAIN intimated that Mr. Marshall had been unanimously elected as President of the Council.

Mr. MARSHALL, in taking the chair, expressed his thanks for the distinguished honour conferred upon him. When he remembered the names of his predecessors he felt the serious responsibility of his office. He was now in the peculiar position of being one of themselves, and it might be supposed that, as the representative of a particular body, he might be liable to swerve from the line of duty. He was quite sure, however, that that body would feel itself disgraced if he allowed himself to have his conduct influenced or modified in the least degree by the circumstance of his connexion with it. His duties would have relation chiefly to the mode in which the business of the Council was conducted, and the object of the president of any public body should be, on the one hand, to protect individual members, and, on the other, to maintain his own authority in the chair. It was quite possible that those two conditions might be excellently maintained; and it would be his endeavour not only to throw his whole soul into the affairs of the Council, but to conduct the business (according to the Celsian maxim with regard to a surgical operation) *cito, tuto, et jucunde*.

Sir Wm. Turner was then appointed a member of the Executive Committee in the place of Dr. Haldane, and Mr. Wheelhouse in the place of Mr. Marshall.

On a motion for entering on the Minutes the usual statement of the degrees, diplomas, and licences of the candidates for commissions in the medical staff of the army, who on February 14th and following days presented themselves for examination,

Dr. MCVAIL pointed out that the holders of English diplomas appeared to have been much more fortunate than the holders of Scotch and Irish diplomas, and suggested that the circumstance might perhaps be accounted for by differences in the examinations in the different bodies. He thought it was desirable to ascertain from the Directors-General of the Army and Navy Medical Departments what conditions regulated the numbers in the column "qualified, but not successful." Last year, he said, it appeared that out of six licentiates of the University of Edinburgh two were appointed to vacancies and four were actually rejected.

Dr. QUAIN said that any body that considered itself aggrieved could make application to the Directors-General, but that it was not the duty of the Council to interfere in the matter.

Sir DYCE DUCKWORTH said that the holders of the qualifications referred to must also have had other qualifications, and that no definite conclusions could be drawn from the figures given, unless they were carefully read. The matter might be referred to the Executive Committee for inquiry.

SIR WM. TURNER said that, as representing the University of Edinburgh, he would bring the matter before that body, but it was not a subject to be taken up by the Council. It was satisfactory to observe that out of seventy-three candidates only three were rejected.

Mr. B. CARTER said that Sir Thomas Crawford had told him that the examinations of candidates for examination during the present year had been exceptionally good, and that many more vacancies were filled in consequence.

Dr. DUNCAN said he sympathised with Dr. McVail's views, and thought it desirable to know what were the conditions regulating the position of candidates who were passed as qualified but not successful. He would move that application be made to the Directors-General for the desired information.

Dr. MCVAIL seconded the motion, which, after some remarks by Mr. Simon, Mr. Wheelhouse, Dr. Bruce, and Dr. H. Watson, was put and negatived.

A communication was received from the Lord President of the Privy Council enclosing an application from the Society of Apothecaries for a postponement of the "appointed day" mentioned in the Medical Act, and asking the opinion of the Council on the subject.

Dr. HAUGHTON moved that the matter be deferred till after the consideration of the motion by Mr. B. Carter for the appointment of assistant examiners to the Society of Apothecaries.

It was pointed out by Mr. Simon, Dr. Quain, Sir W. Gull, and others, that when the matter was mentioned at the last meeting of the Council it was understood that if the extension of time was required it should be allowed.

Dr. Haughton's motion was not seconded, and it fell to the ground. A motion for the required extension of time was then agreed to.

Mr. B. CARTER then moved: "That, in pursuance of the application made to the General Medical Council by the Society of Apothecaries of London, by letter dated April 12th, 1887, for the appointment of Messrs. W. J. Walsham, G. H. Makins, and Andrew Clark, to be assistant examiners to the Society, under the provisions of the Medical Act of 1858, the Council hereby appoint Messrs. Walsham, Makins, and Clark to be assistant examiners accordingly." He said that at the last meeting of the Council in February the decision on the question was postponed in order that a representation might be made on the part of the Council to the Royal College of Physicians and the Royal College of Surgeons, in the hope that the objections entertained by those bodies to a combination with the Society of Apothecaries might be overcome. That representation had been made, but unsuccessfully. During the interval the Society of Apothecaries had in some degree modified the terms of their application. They now asked for the appointment of the three named gentlemen as assistant examiners. The privileges of the Society of Apothecaries with regard to the licensing of medical practitioners dated originally from a charter conferred by King James I., but for the purposes of the discussion he would be content to trace them to various Acts of Parliament, some of them specially obtained by the Society and others affecting the Society in common with other medical bodies. The first and most important of the special Acts was that which came into operation in the year 1815. The College of Physicians absolutely refused to undertake the supervision and control of the medical education of the general practitioners, and the work was therefore committed to the Society of Apothecaries, which had ever since carried it on in what he believed was admitted to be an admirable manner. During the seventy years that had elapsed the licence had been conferred upon more than 22,000 practitioners, and the number of licentiates was at this moment about one-half of the whole medical practitioners of England. Of the thirteen gentlemen of English birth and English medical education sitting around that Council table, he believed seven held the licence of the Society of Apothecaries. The estimation in which the Society was held by Parliament was sufficiently shown by the fact that it was retained in the Act of 1886 as one of the bodies entitled to send a representative to the Council; but the Act, while requiring that no one should be admitted to the Register except as the result of an examination in medicine, surgery, and midwifery, did not give the Society any statutory right to confer a surgical qualification. It could not therefore grant to its licentiates the right of entrance to the Register unless it could combine with some other licensing body by which its deficiency in respect to surgery could be made good. It could hardly be expected that the Society of Apothecaries would be able to combine with any of the universities, because those universities already possessed the power of giving licences in medicine, surgery, and midwifery. The only bodies with which the Society could combine practically were the College of Physicians and the College of Surgeons, and some years ago such a combination was very carefully considered, and was at one time looked upon as being practically settled. Lately, however, the Royal Colleges had refused to carry out the arrangement which they once made. It was under these circumstances that the Society now appealed to the Council to carry out the intentions of the Act of Parliament. He held that the Council had a certain amount of discretion in the matter, but that discretion must be exercised in a just and reasonable manner, having due regard to the legal rights of the Society. Whatever their decision was, the Privy Council had absolute power to review, confirm, or reverse it, and he was strongly of opinion that the action of the Privy Council would be almost entirely guided in the matter by the grounds upon which the decision of the Council was arrived at. If it appeared that it rested upon grave, weighty reasons of public policy, there could be very little doubt that an adverse decision on the part of the

Council would be supported by the Privy Council; but if, on the other hand, they were influenced by sentiment, by corporation rivalries or jealousies, the Privy Council would reverse the decision. If any members of the Council were opposed to the granting the Society examiners, he respectfully invited them to formulate the reasons by which their views might be supported. His mind was perfectly clear on the question that if he were not the representative of the Society he should still vote in favour of the application. The only assertion that he had heard as to the mischief or evil that might arise from granting the assistant examiners was, first, that those examiners would enable the Society of Apothecaries to remain in competition with other licensing bodies, and that such competition would be likely to be disadvantageous. It could not surely be disadvantageous to the public, because the special function of the Council was to exercise a supervision over examinations, to see that they were adequate for the protection of the public, and not unduly severe in their claims on the medical student; and for the Council to say that the existence of one or more examining bodies would tend to lower the standard of examination was to admit at once their own inability to discharge the functions which the Act imposed upon them. His own feeling was that the action of competition would be precisely the reverse, and that nothing but good was likely to come from it. If there was room for useful work for both the bodies, they would survive and do the work; but if there was not room, the fittest only would survive; and if the time came for the Society of Apothecaries to be extinguished, it would extinguish itself by a process of natural decay, of which, however, he at present failed to see even the very earliest indications. The idea that the Society would be likely to use what had been called competition downwards was one which had appeared to him no gentleman was justified in gravely putting forward, because it was totally opposed to the whole past history of the Society. He could quote in defence of his position the professional authority of the Royal College of Physicians of London, which was so much impressed with the necessity or the desirableness of some competition in London that in the year 1861 or 1862 it established an organisation, and went out of its way to set up competition where none before existed, and by recent decisions the College had shown how thoroughly it adhered to what it had done. He asked the Council not to deprive the public of the benefits of that system of competition which the College of Physicians had made sacrifices to establish, and which even within the last week it had declared it would not abandon. The reason why three examiners had been named was because the Act stated that they should have the power to appoint on the application of the corporation, and it was doubtful, therefore, whether the Council would have any power to appoint either more or fewer examiners than those that were applied for. The gentlemen named were appointed examiners by the Society of Apothecaries in 1884; they were gentlemen of the highest surgical attainments and of great practical experience. The Society put forward their names without any shadow of hesitation as to their fitness for the work.

Mr. SIMON seconded the motion. He said he did not agree in the view that it was desirable to have competition among examining boards, but the Council was now in this dilemma that they must either have the two examining boards in London, or must disobey the intentions of the law. It was on that ground that he seconded the motion. The Act of Parliament was obligatory upon the Council unless they had strong and definite reasons to the contrary. They might refuse, but they could not do so unless they had some reason which was not before Parliament at the time of the passing of the Act. If Parliament had meant to extinguish the Society of Apothecaries, it would have done so itself. That proposal was before Parliament, but was withdrawn. Such a thing was never dreamed of in Parliament as to give power to the Council to extinguish a body with vested rights against whom no complaint had been levelled. If they had been at the present moment before the Privy Council with an accusation against the Apothecaries' Company for having unfitly discharged its duties, then without doubt they might refuse to entertain the application, and probably the Privy Council would support them. If there had been anything wrong in the examination, it was the duty of the Council to represent it to the Privy Council, but in the absence of any such representation the examination of the Apothecaries' Company was supposed to be as good as that of the University of Cambridge for all purposes of the law. If without any justification of that kind they would refuse to do what the Company asked them, they would place themselves in an extremely embarrassing position. What wrong had the Apothecaries' Society done that they should be at the mercy of the General Medical Council? The Council was not established on the Kilkenny cat principle, that some bodies should be able to eat up others. He extremely regretted the necessity of the vote, but he had not the least hesitation as to what was his duty, and therefore he seconded the motion.

Mr. TEALE said that the motion involved two separate things: first, the granting of examiners; and, secondly, the appointment of special persons.

Mr. CARTER said he was quite willing to alter the resolution so that it should read: "That in pursuance of the application made to the General Medical Council by the Society of Apothecaries of London, by letter dated April 12th, 1887, for the appointment of assistant examiners to the Society under the provisions of the Medical Act of 1886, the Council hereby consent to appoint assistant examiners accordingly."

Mr. TEALE regretted that it was necessary to establish a second competing Board of Examiners in London, but he agreed with Mr. Simon that they really had little option or discretion in the matter. If Parliament had intended that they should have the power to put an end to the Apothecaries' Society, Parliament would have done it itself. He therefore did not see how they could avoid coming to the conclusion to grant the request of the Society.

Permission was then given to Mr. Carter to amend his resolution, and Sir DYCE DUCKWORTH moved the adjournment of the debate.

The Council then adjourned.

WEDNESDAY, MAY 11TH.

MR. MARSHALL, PRESIDENT, IN THE CHAIR.

Adjourned Debate on Mr. Carter's Motion.

A proposal by Dr. AQUILLA SMITH, seconded by Mr. WHEELHOUSE, to resolve the Council into a committee for the purpose of considering the application from the Apothecaries' Society was negatived, and the debate was then resumed.

Sir DYCE DUCKWORTH said that at the meeting of the Royal College of Physicians he was requested to state to the Council what the policy was that led the College to act as it had done. When the courteous letter from Sir Henry Acland was received it was accompanied by no fresh arguments, and as the whole question had been fully and maturely considered, both in committee and by the whole College, the first decision was reaffirmed *nem. con.* The College saw that it would receive no accession of strength by union with the Apothecaries' Society, that the examination established by the Conjoint Board would in no way be improved by the addition of such examiners as the Apothecaries' Society could send to it from its own body, and that such being the case no possible good could accrue to the public at large from conjunction with that body. If the Apothecaries' Society took part in conducting the examinations of the Conjoint Board, they would have to find their examiners from without, and they would cease to issue diplomas upon their own account, so that, in fact, they would be nothing more than a trading company in the City. One point that had been lost sight of was that the College of Physicians of London had power to give a complete qualification in medicine, surgery, and midwifery; so that it was really not incumbent upon the College to seek an alliance anywhere. For the general benefit, however, it was thought well that the College of Surgeons should be allied with it. At the time when there were negotiations for an alliance with the Apothecaries' Society all the universities of England negotiated too, but a very different state of things prevailed now. The action which the College took in 1861 in establishing a new order of licentiates had been of great benefit to the profession, and had improved the educational standard of general practitioners. If that was to be regarded as competition, it was at all events a competition upwards, but he was quite sure that it was in no way intended to compete with the examinations held every week in the Apothecaries' Hall. To those who knew the circumstances of the case it was simply ridiculous to talk of rivalry or jealousy. Speak-

ing simply as a member of the Council, and not as a representative of the College of Physicians, he considered that the Apothecaries were no longer wanted in this country. They had done their work well, but the need for them had passed away. That which they had done at one time was now much better done by the trained and examined members of the Pharmaceutical Society. The only reason why the pupils at the schools wanted to take a licence of the Apothecaries was because in some provincial hospitals, and in the bye-laws of various boards of guardians, it was required that, whatever diploma any candidate might possess, he must produce the licence of the Apothecaries' Society. It therefore happened that men who were eminently qualified and held the diploma of the College of Physicians and degrees of the universities, had, perforce, to go to Blackfriars and obtain the licence of the Society. The Apothecaries' system had been a great drawback to the profession of the general practitioner. It had been the means of spreading many mischievous ideas among the public, and the nonsense of homœopathy in this country was little more than a Nemesis following the apothecary. It was not for one moment to be doubted that the requirements of the two Royal Colleges were distinctly in excess of those of the Apothecaries' Society, and those who were interested in the levelling up of the profession must look askance at the reinstatement of the Apothecaries' Company. They had been threatened with an appeal to the Privy Council; but was the Medical Council to be muzzled and to be afraid to utter its opinions at a time like the present, and to defer to the opinions of a body of laymen who, however exalted and eminent, did not at present contain a single member of the medical profession, and who therefore were not qualified to form an opinion for themselves unguided by the Medical Council as to what was best for the highest interests of the profession. It was the duty of the Council to go forward boldly without any fear to do what it thought best and right for the profession and for the highest interests of the public.

Dr. STRUTHERS moved as an amendment: "With reference to the application made to the Council by the Society of Apothecaries of London, of date February 12th, 1887, received and entered in the Minutes of February 18th (p. 127), and to the further application by the Society to the Council, of date April 12th, 1887, that, in the opinion of the Council, it would be contrary to the interest of the public that the Society of Apothecaries should, through Section 5 of the Medical Act (1886), be enabled to grant a diploma qualifying for admission to the medical profession." At the last meeting of the Council he had proposed a resolution in favour of the Society of Apothecaries being admitted to the Conjoint Board, as he considered that the best way of getting rid of the difficulty which then existed was by process of absorption. The present proposal, however, was to revivify the Apothecaries' Society of London and put it in a position it had never before occupied—namely, that of being empowered to give a complete qualification. He opposed that proposal, feeling that the matter should be left with the Privy Council. His amendment was not designed to put an end to the Apothecaries' Society, which under the Act would in some respects come to an end in June, unless the Medical Council gave it a new life. But it had other functions to fulfil, and would still continue to supply medicines to the profession or to anybody else, and to prosecute quacks. Even if it ceased to do that, it could still confer the distinction of L.A.C. on those who chose to take it. In his opinion, it would be contrary to the interests of the public that the Society should be enabled to grant a diploma qualifying for admission to the medical profession. That the Apothecaries' Society should cease to be a licensing body was no new idea, for in the reports of the Select Committee in 1879-80 the opinion was sometimes expressed. By the Bill introduced by the Government of the day into Parliament in 1883, the Apothecaries' Society was only to have one representative on the Council, while the College of Physicians was to have three and the College of Surgeons three. When the Bill went into committee the Irish Apothecaries disappeared, and afterwards the London Apothecaries' Society was deleted from the Bill. Then, again, in the Bill of 1884 the Apothecaries' Society was left out. All those who were engaged on the Bill of 1886 knew very well that the Vice-President, Sir Lyon Playfair, was very anxious to pass what was passable, and to steer clear of all rocks ahead. He got quit of the difficulty of the Apothecaries very cleverly by putting it upon the Medical Council, and, if they did not settle it, leaving it to the Privy Council. If the application of the Apothecaries' Society were granted, the qualification which they gave must be an inferior one, and would lead to an inferior order of practitioners. At the last meeting of Council he was challenged by Mr. Carter when he spoke of the licentiates of the Society as apothecaries, but he found in the well-known Act of Parliament of 1815 there were constant allusions, not to a licence, but to a certificate to practise as an apothecary, and the examiners were required to examine a man "as to his fitness or qualification to act as an apothecary or assistant to an apothecary." If Mr. Carter's motion were agreed to, what kind of students would go to the examination? The men about whom there was something wrong might try for the certificate, but others would not. He did not think that any qualification should be attempted below the diploma of the Royal College of Surgeons. The profession was overstocked, and it was the duty of the Council to elevate it, and not to lower it—not to make apothecaries out of them, but to raise the members more and more. If the application were granted, the Council would perpetuate the system of supplying drugs. The competition of the universities was good, but the competition of the Apothecaries' Society would not be good. It was continually said that the Society ought not to be extinguished because it had done good work in the past. No doubt the Society put on an examination in medicine in 1815, but they obtained a monopoly along with it, and got the whole of the practice in England into their hands. An English apothecary was a thing that was not understood in Scotland or anywhere else in the world. The Apothecaries' Society used their power against the Scotch and against the Irish. The best educated man from Scotland or from Trinity College, Dublin, was regarded as an illegal practitioner in England. Formerly, if a Stokes or a Christison ordered a dose of rhubarb, he would have got a lawyer's letter, and have been mulcted in £20. No English Star Chamber ever used its powers more constantly than the Apothecaries' Society did.

Dr. QUAIN said Scotchmen were not allowed to cross the border to practise as apothecaries. The restriction did not apply to surgeons or physicians.

Dr. STRUTHERS said that the Apothecaries' Society became a trades union, giving the Englishmen the monopoly and keeping enterprising Scotchmen and Irishmen off the soil. An outburst of homœopathy took place in Edinburgh, but it was like the seed that fell on stony ground, and there was not now a pure homœopath in Scotland; but owing to the Apothecaries' Society homœopathy flourished in England, and, by teaching people to rely on nature and not trust so much to drugs, had done more good for the science of medicine than the Apothecaries' Society ever did. Mr. Carter had not referred to it, but outside a good deal had been said about the power of prosecuting quacks. On this matter, however, the report of the Medical Acts Commission said: "We consider it undesirable to attempt to prevent unregistered persons from practising, but at the same time we think that they should be prevented from representing themselves as being registered or assuming titles which would lead the public to believe that they are regular medical men." It was not creditable to any body of men at the present time to combine with another on the ground of the power to prosecute quacks. There were some things about the constitution of the English Apothecaries' Society which were not understood even in England. The Master of the Society, when giving evidence before the Medical Acts Commission in July, 1881, said that the Society touched none of the money that was paid for the examinations, the fees going into a fund entirely separate from the corporation, and being applied towards the expenses, the twelve examiners receiving £1000 a year between them, and the secretary of the Court of Examiners a salary of £200 a year. The Royal Colleges and universities had grand museums and magnificent libraries, but the Apothecaries' Society had no such things. It was an antiquated body, having its livery and its yeomanry, and using old phrases which dated back to the time when the surgeons were in alliance with the barbers. The Society was also a trading company, manufacturing and selling drugs and chemicals, not only by wholesale, but by retail, and dealing likewise in goods which it bought from other traders.

Dr. QUAIN said the Apothecaries' Hall was a distinct body from the Apothecaries' Society, and he protested against the

time of the Council being wasted upon hearing an argument which had no bearing upon the subject before them.

Dr. STRUTHERS caused some amusement by handing to the President a tincture, a powder, and a bottle of eau de Cologne which he had bought at the Apothecaries' Hall.

Sir WM. GULL seconded the motion.

Sir WALTER FOSTER said he was glad that Dr. Struthers had recalled the minds of the Council to the humbler branches of the profession, which were doing good and useful work. He had, however, endeavoured to appeal to sentiment not of the highest kind, and to revive recollections and grudges against the Apothecaries' Society. There was nothing disgraceful in shopkeeping when carried on in an honest spirit. They were now placed in a position of great gravity, being called upon to decide whether the competition between the licensing bodies of London should continue on those lines which the profession generally had condemned. If they refused to grant assistant examiners to the Apothecaries' Society it would appeal to the Privy Council, and it was generally thought that the Privy Council would concede them the right to continue by ordering the appointment of examiners. He did not think that the Council should have the power to destroy the Apothecaries' Society under the present condition of matters, unless they had a good reason of their own for it; but in that event they would not be acting in the interest of the public, but from a narrower professional ground. If they refused to allow the Apothecaries' Society to have examiners and were backed up by the Privy Council, they would have growing up in the profession a new kind of practitioner. A Bill was now before Parliament called the "Pharmacy Act Amendment Bill," which established for the Pharmaceutical Society a curriculum of which materia medica formed a part, which meant that pharmacists of the future would enter upon a course of study embracing part of the medical curriculum. The course of materia medica lectures would include a good deal more than a knowledge of the physical and chemical properties of drugs. It could not be denied that in hundreds and thousands of cases patients were prescribed for by chemists over the counter, and that practice would continue until they supplied properly qualified aid to the poor people. If the public were denied the opportunity of consulting those practitioners who were useful to them, they would soon ask for parliamentary powers authorising those practitioners to prescribe for them, and he consequently believed that, in the interests both of the public and of the profession, it would be wrong to remove the power from the Apothecaries' Society of giving qualifications for the practice of medicine. If the Apothecaries' Society failed to sustain its standard of proficiency the Council would have power to control the granting of its licences. He regretted that the matter had come to its present position, and he laid the blame on those Colleges which had refused their sanction to the proposal that had been made. For himself, he was willing to give his vote according to his convictions, which were that the Council should declare that the Society should have examiners, and, in the interest of the public, they should appoint examiners to assist the Apothecaries' Society in giving a qualifying diploma for entrance on the Medical Register.

Mr. WHEELHOUSE said he thought the apothecary was a necessity in England. He did not know how the poor in many isolated localities could obtain medicine if the general practitioner were not permitted to supply it. He had been very anxious that the Apothecaries' Society should be absorbed by the two Colleges, and that there should be one portal by which to enter the profession. If that could not be brought about, there should be some means by which competition could be kept up to a certain extent. He was himself a licentiate of the Apothecaries' Society, and he felt that he should be turning his back upon it if he were now to say that it ought not to have the powers which it sought. The Council would be able to keep up the standard of the Society's examinations, and he therefore hoped that the application would be granted.

Mr. MITCHELL BANKS said he believed that there was a strong desire on the part of the Council that an amalgamation should take place between the Society of Apothecaries and the other bodies, but those bodies had declined, and the Council ought not to have its judgment warped by that consideration. The fear of threatened consequences ought not to weigh on them for a moment. No valid argument had been brought forward to prove that the request made ought to be granted. It had been urged that it was necessary to have a low class of practitioners, but he did not believe that such a class was required. The question at issue was one of vested interests, but whatever respect they might have for such interests, they ought not to be allowed to override the public good.

Dr. LEISHMAN concurred in the interpretation given by Mr. Simon to the words "if they think fit," and said that he was able to vote for Mr. Carter's resolution, which left it open to the Council to consider what number of examiners should be appointed. He had no sympathy with the Society of Apothecaries, but he was bound to recognise its legal claims.

Dr. HAUGHTON said that he was now a complete convert to Mr. Carter's proposal, for which he intended to vote.

Mr. SIMON said that the question of the fitness of the Society of Apothecaries had been decided by Parliament, and it was not for the Council to attempt to override that decision. The Council had a legal duty to fulfil towards the Apothecaries' Society, and if they did not do it the Privy Council would. If Dr. Struthers' amendment were defeated, as he hoped it would be, he believed that in two years there would be a conjoint board in London which would include the Apothecaries' Society.

Dr. DUNCAN said he could not accept the law as laid down by Mr. Simon. When the Act used the words "if they think fit," it did not mean nonsense, but it meant what it said. The prophecy of a one-portal system in two years he considered a ridiculous one, and he believed that if the profession were polled the general feeling would be expressed that the system was the abomination of abominations. He had great respect for the Apothecaries' Society, and regretted to have to vote for a proposal that might lead to its extinction. Mr. Simon's statement about the intention of the Legislature in passing the Act was mere idle talk. That intention could only be gathered from the Bill itself. He had learned from the highest authorities in the College of Physicians with which he was connected that the intention was that the Society of Apothecaries should be extinguished if the Medical Council thought fit.

Dr. BRUCE said that he thought Mr. Simon's argument in reference to the words in Clause 14 was unanswerable. Although he had at one time been an advocate for the one-portal system, he believed that if that system were carried out it would lead to a dull uniformity, and that the best thing was free open competition. If it had been the intention of the College of Physicians when the Act was being passed to extinguish the Society of Apothecaries, that view ought to have been frankly declared.

The debate was adjourned.

(*For continuation of Report see p. 1003.*)

JERUSALEM HOSPITAL FOR JEWS.

THE English Hospital for Jews in Jerusalem, in connexion with the London Jews' Society, has been established for over forty years for the gratuitous relief of the sick. It was the first hospital founded in Jerusalem, though many similar institutions have been established since then by the different nationalities. The work of the institution lies amongst the Jews, of whom there are about 25,000 now in Jerusalem; but Arabs are also occasionally seen. The hospital has twenty-six beds. There appears to be some difficulty in respect of the nursing, for which the managers of the charity have to depend entirely on such aid as can be procured in the place. Mr. Percy D'Erf Wheeler, M.R.C.S., L.R.C.P. Lond., is both physician and surgeon, and he is assisted by a proselyte educated for the medical profession in Hungary. A dispensary is connected with the hospital, and all the drugs and instruments are from London houses. Every kind of case is admitted, and patients arrive from Persia, Armenia, Circassia, Tunis, &c., many of them suffering from diseases of the eyes. They say they prefer coming to an English hospital. The sanitary condition of the city is stated to be deplorable, and the services of the medical staff of the hospital are found to be necessary not only in treating disease, but in directing the minds of the people to the paramount importance of cleanliness and sanitation. Malarial fever heads the list of diseases for which relief is sought. During the year 1886 the in-patients numbered 6052, and the total consultations amounted to 37,018—a figure which speaks eloquently of the good work done in connexion with the institution.

THE LANCET.

LONDON: SATURDAY, MAY 14, 1887.

THAT there is something radically wrong in the present state of medical education is a proposition which at the first blush seems almost preposterous. That, with all our boasted improvements in the art of teaching, with a large body of teachers, never more zealous and devoted than at present, the results of the Final Examinations should be so deplorable as they confessedly are, surely evinces an error in method somewhere. Dr. GLOVER, it may be remembered, urged the point as evidence of a lack of practical knowledge, and thought that a return more or less to the old apprenticeship system would prove a remedy. That in 1885, according to the official returns, no fewer than 56 per cent. of the candidates were rejected at the Final Examinations of the Edinburgh Colleges, 48·2 per cent. at the Royal University of Ireland, and 44·1 per cent. at the College of Surgeons of England, are results which, to use Dr. GLOVER'S words, may well be styled "appalling" and "very painful." For it must be remembered that the candidates are all men who have completed the prescribed curriculum under all the advantages now offered for a complete training, and it is shocking to find so poor a result after so much labour. It is hardly possible to attribute this solely to the causes assigned by Dr. GLOVER, and it may be worth while to inquire whether there may not be other and less remote reasons for the high percentage of rejections.

The experience of the last few weeks of the examination held by the College of Surgeons supplies an answer to this inquiry, and clearly demonstrates that a large share must be laid at the door of the examination itself. For the number of rejections among the candidates at this Final Surgical Examination has been considerably in excess even of that given for the year 1885. There must be something wrong in system and in method to permit of such a large percentage of rejections, and we call upon the London teachers, who are all interested in this question, to spare no effort in determining the real cause of this regrettable state of things.

Much praise has been bestowed upon the examinations of the College of Surgeons for their stringency; but an equal amount of blame is due for their uncertainty. The personal equation plays a prominent part, for owing to the system that prevails, whereby the results of the written and those of the oral examinations are kept apart, and the comparatively high value set upon the few minutes' oral examination, it is obvious that the chances of success or failure must lie largely in the demeanour of the candidate and in the fitness of the examiner for his work. The rough-and-ready methods of old days have their survival in the present, and the student, who knows often as well as his teachers, and certainly better than his examiners, the standard of his fellows' knowledge, comes to regard the passing of an examination where the strong sometimes fail and the weak succeed as a game of chance, and trusts that he may have the luck to meet with a leniency which he may not merit. It is this uncertainty, due almost entirely to deficiency in the "art of examining," that is doing a great deal to bring into contempt examinations which we have perhaps been too apt to praise for their practical and searching character. That this is no new discovery may be gathered from the outspoken evidence of Mr. CHRISTOPHER HEATH, given before the Medical Acts Commission. Speaking of the examinations at the College of Surgeons, he says:—

"4065. One man may be lucky. He may go to a man at one table who is an easy examiner, and he will get through; and his friend, who has got a more difficult examiner at a table the other side of the room, does not get through. I do not know, human nature being as it is, how it is to be avoided."

Again, a little later Mr. HEATH makes the following remarkable admissions:—

"4069. (Prof. Turner.) I have heard complaints as to the examination of the Royal College of Surgeons of England, as to its being so uncertain an examination. Do you think there is any foundation for such a complaint?—It is uncertain.

"4070. What you have said with regard to the different standards at the different tables bears out the statement of its uncertainty?—Quite so.

"4071. So that I suppose you would not put forward the examination of the College of Surgeons of England as a model examination?—No, I think it might be modified with advantage in some way.

"4072. And perhaps in some respects in the way of diminished stringency and of less uncertainty?—Yes."

Further comment is needless. The statements of 1881 hold good for 1887; and we maintain that the credit of the College of Surgeons (ay, and the College of Physicians, too, since it has become a partner in the Examining Board) is at stake, for its reputation depends on the maintenance of a just uniformity in the performance of its duties as a qualifying body.

IN continuation of our remarks on the report of the Manchester Medico-Ethical Association on the question of the defects in the constitution of the Coroner's Court, we proceed to deal with the most important part of the whole document. We allude to paragraph 1 at the bottom of page 16: "The examination of the body upon which an inquest is to be held should be made by a medical man specially skilled in such matters, who should be designated the Public Pathologist, and that for every coroner's district there should be one or more such pathologists appointed to conduct the examination of the body previous to the inquest." The second paragraph advises that the appointment of the pathologist should be made by the Crown. This, it may be remarked, is quite impracticable; the pathologist should be not an officer appointed by the Crown, but an expert witness called by the coroner. The third paragraph provides for the calling in of further scientific experts for analysis, &c. The fourth paragraph is very important, and is this: "The duties of the public pathologist should not preclude the medical attendant in the case from giving evidence as a skilled witness where necessary." At present coroners are compelled by the Medical Witnesses Act to summon the medical attendant in the last illness, or, failing this, "any legally qualified practitioner in actual practice in or near the place where the death happened." The majority of

jurymen at such inquest may also call for the evidence of such other medical witnesses as they may desire. From this it will be seen that the present law is sufficiently elastic to provide the requisite evidence without so sweeping a change as would be involved by the appointment of public pathologists by the Crown. The employment of the medical attendant or local practitioners by the coroner has been the subject of ceaseless attacks, and it is somewhat lamentable to read in the report under consideration that the medical attendant is not to be precluded from giving evidence as a skilled witness when necessary! A large proportion of the cases forming the subjects of inquests are those of sudden illness, poisoning, and violence of all kinds, in which the assistance of the nearest practitioner must be sought. Should death occur and an inquest follow, he is the only witness who can give evidence as to symptoms, appearances, &c., and his evidence must, as a matter of course, be necessary. Moreover, should a post-mortem examination be requisite, and the medical attendant be willing and desirous to undertake it, why should he be requested to stand aside and give place to a pathologist? THE LANCET has always appeared as the champion of the rights of general practitioners, and in continuance of this course we must protest against the proposed shutting out of the medical attendant as utterly unwarrantable. For not only is it, as we have seen, unworkable so far as the giving of evidence is involved, but it wholly ignores the fact shown by past history, that the average general practitioner in town and country has frequently shown himself to be as competent to make a post-mortem examination and to face with credit to himself a severe cross-examination in the witness-box, as to attend a difficult midwifery case, to set a fracture, or to perform any of the other numerous and multifarious duties which fall to a general practitioner's lot. In 1845 occurred the case known as the TAWELL murder, in which the deceased woman, SARAH HART, died from poisoning by hydrocyanic acid. The three local practitioners of the rural district where the death took place (Messrs. CHAMPNEYS, PICKERING, and NORBLAD) conducted the necropsy; and those who will refer to THE LANCET of that year will find that their report leaves little to be desired. Moreover, so carefully were the stomach and its contents removed, handled, and forwarded for analysis, that, though the nature of the poison was not known, the analyst (COOPER) was enabled to distil from the contents of the stomach one grain of pure anhydrous hydrocyanic acid. Could a skilled pathologist have done better? Again, when the Rugeley poisonings occurred in 1855, the late Dr. MONCKTON, then of Rugeley (subsequently of Maidstone), was entrusted with the examination of the exhumed bodies of ANN and WALTER PALMER. He published minutes of these in THE LANCET of 1856, and they may be profitably referred to now as models of how to proceed in future inquiries of the kind. And numbers of similar cases might be given. What is required is, not to shut out the medical attendants or local practitioners, but to encourage amongst them the careful and practical study of forensic medicine.

But though anxious to guard the interests of the general practitioner, it is not to be inferred that the present mode of conducting necropsies for coroners is in our opinion satisfactory. Very far from it. In every case involving a criminal charge against a suspected person there ought to be a second medical examiner without waiting for this to be asked for by the coroner's jury. It is obviously undesirable that all the important evidence afforded by a post-mortem examination should be the solitary possession of one medical witness, who might subsequently be unable to attend the trial from illness or even death. This has not infrequently happened, and the prisoner has thus been deprived of the advantage which might have followed a cross-examination of the only medical witness. On this account alone the presence of a second medical witness is most desirable, and this being admitted, it follows naturally that he should be one well experienced in necropsies and thoroughly acquainted with all the appearances of the internal organs, both morbid and healthy. The evidence of a skilled pathologist is very valuable, but it is also desirable that the second examiner should possess a competent knowledge of legal medicine. In a leading article published in THE LANCET of March 7th, 1885, it was remarked that the position of forensic medicine in this country was not what it ought to be. It has not kept pace with physic, surgery, ophthalmic surgery, obstetrics, or the other branches of medical study. The cause is not far to seek. Though for many years past attendance on one course of lectures on medical jurisprudence and toxicology has been compulsory upon every medical student, the lectures, with few exceptions, have not been of a nature to render the subject attractive; in most provincial and some metropolitan schools the lectureship has been too often regarded as a mere stepping-stone to some other more lucrative chair—a condition of things disastrous both to lecturer and students. Those who have attended the lectures of the late Professor SWAYNE TAYLOR, his successor Dr. THOMAS STEVENSON, Dr. TIDY, Dr. OGSTON of Aberdeen, or Dr. LITTLEJOHN of Edinburgh, will know how deeply interesting and practically useful this course of lectures can be made. In future care should be taken that the lecturer on forensic medicine in every medical school should be able to teach his subject practically as well as theoretically; and, as a means towards securing this, he should be an experienced pathologist. His aid should be sought by coroners and medical practitioners in all necropsies of a medico-legal character, the medical attendant and he making the examination jointly. By this simple arrangement, which could be brought about quietly, voluntarily, and without any alteration of the law, the rights of general practitioners would be respected, the latter would be afforded valuable help at a time when it is much needed, a considerable saving would be effected of scientific material now wasted, and a great impetus would be given to the better cultivation of forensic medicine. The various classes of this branch of medical study commenced this month, and we would call the serious attention both of teachers and students to recent trials, especially those of the Oldham poisoning case and the Hoxton murder. The first shows how important it is for every medical practitioner to have his wits always ready for any emergency, even in his most routine duties. Poisoners generally work insidiously, and take full advantage of every circumstance likely to remove suspicion from them. The Hoxton murder emphasises the excellent advice given by Lord DEAS at a trial in Aberdeen in

1855: "A medical man, when he sees a dead body, should notice everything." The same case also shows the importance of making careful notes of all the post-mortem appearances for the purpose of refreshing the memory at the trial. What made the lectures of the eminent medical jurists to whom we have referred so valuable and interesting was the number of cases which they were able to give from their own experience. It is this which made CASPAR'S work so valuable a book of reference. But London, Edinburgh, and Berlin do not possess a monopoly of all that is valuable in forensic medicine. Every coroner's district may furnish its quota, and it is the duty of all practitioners throughout the kingdom, while standing up for their undoubted rights as afforded them by the Medical Witnesses Acts, to give every assistance towards the practical study and cultivation of forensic medicine and toxicology.

OF all the means which medical men possess for the saving of human life there is none so potent for good as vaccination. The amount of sickness and death which is prevented by this operation is almost incalculable, yet it is no exaggeration to state that there are few subjects of which the teaching is so lamentably neglected in our medical schools. The fact that vaccination is regarded as a trifling operation which can be performed by anyone leads to large numbers of men who engage in practice having the most elementary knowledge of its nature. The result is that vaccination is considered by many to be the mere inoculation of vaccine lymph, without any relation to the effects which will be produced in protecting the patient against so fatal and disfiguring a malady as small-pox. There is no question that comparatively few realise the full importance of the duty they are undertaking when they vaccinate, or understand that upon their method of operation depends the probability of their patient being protected for a long or short time against attack or even death from this disease.

A recent discussion by the Society of Medical Officers of Health was the occasion of statements being made which show that the want of knowledge of parents is often allowed to influence the action of the operator to the distinct detriment of the child, and, as a result, vaccination is credited with failure to sufficiently protect against small-pox, simply because it has been inefficiently performed. So far as relates to public vaccination, the Local Government Board have endeavoured to raise its standard, and have, by the issue of instructions for vaccinators under contract, pointed out the proper method of the performance of the operation and the means of guarding against all risk of injury. It would be well if the profession would understand that the instructions are not less applicable to private than to public vaccinators, and that it is their duty to protect as completely as possible their patients against attack by small-pox. These instructions state definitely that at least four separate good-sized vesicles, or groups of vesicles, should be made, so that the total area of vesiculation on the same day of the week following the vaccination should be not less than half a square inch. This recommendation is based upon an experience of many years, and upon the evidence which every small-pox hospital affords, that the severity of attack by small-pox subsequent to vaccination is inversely proportionate to the number of cicatrices. It should therefore be clearly understood that any medical man vaccinating less efficiently than is here indicated is guilty of an act of injustice to the individual who has placed himself under his care for the purpose of being protected against small-pox. It cannot be pleaded that vaccination of this sort exposes the patient to greater risk than a less complete performance, and everyone who neglects to comply to the fullest extent with this requirement incurs a serious responsibility, which it is impossible to evade.

There are reasons for the postponement of vaccination; there are none which can justify its ill-performance. Of the reasons for postponement may be mentioned those which are specifically stated in the instructions. The patient should, at the time of vaccination, be in good health, and, if an infant, should not be in any febrile state, or suffer from any irritation of the bowels or any unhealthy state of the skin, nor should he have been recently exposed to the infection of measles or scarlet fever, or any chance of risk from erysipelas which may happen to prevail in or about the place of residence. There is only one circumstance under which this advice can be set aside—that is, where there is definite exposure to small-pox, when the risk of death from this disease will justify the infraction of these rules.

As to the subjects from which lymph may be taken, the instructions are equally specific. They must essentially be healthy children, of whom preferably the family history is known, and they must be absolutely free from skin disease, from any sort of sore at or about the anus, or other sign of hereditary syphilis. Lymph must only be taken from children vaccinated for the first time, and never from cases of revaccination; and, again, only perfect vesicles without conspicuous areola should be permitted to supply it, and lymph contaminated with blood or by running over the skin must be rejected, as well as that which is thin and watery or not clear and transparent.

The precautions against septic injury are based upon the maintenance of absolute cleanliness of instruments, of subsequent dressings, and upon, as already said, freedom from exposure to septic disease. The need for the instructions as to cleanliness has unfortunately been strongly emphasised by accidents due to neglect. Lancets, it has to be remembered, are not the only instruments which are capable of inflicting injury in this manner. Our readers will not have forgotten the calamity at Norwich which led to the instruction that ivory points and capillary tubes should not be used a second time; we are induced to dwell especially upon this recommendation for the reason that the Local Government Board have just issued a report by Dr. AIRY on a death from erysipelatous disease after vaccination, the operator having omitted to exercise the precaution which is here enjoined.

By the loyal adoption of these recommendations, the few accidents which now occur from vaccination would be materially reduced in number, and an operation which saves yearly thousands of lives would meet with less opposition from those whose very existence is often dependent upon its performance. It may be hoped that in the future the General Medical Council may recognise the necessity for students being better taught in a branch

of practice in which they will all more or less have to engage; but the absence of this teaching, which we lament, makes it the more necessary that the instructions of the Local Government Board should be carefully studied by private as well as public vaccinators.

WE had hoped that the question of the military status of the medical officers of the army would have been settled by the assurances given by the Secretary of State for War and the alteration in the Royal Warrant which he intimated. But this, it would appear, is not to be the case. An outcry has been raised for the grant of *honorary* rank to the medical officers, in the same manner as it is now given to the officers of other departments of the army. We cannot but think that this is a retrograde step. The wording of the Warrant as proposed to be now issued appears to us, as we have already pointed out (see THE LANCET for April 23rd, p. 836), to carry with it *substantive* military rank, for we are unable to conceive of any more clear definition of substantive rank to a medical officer than that his position and powers are the same as those of the corresponding grade in the combatant ranks, within the specified limits which clearly mark out their several and respective spheres of action. And for this substantive rank it is now proposed to make a fight for *honorary* rank. It is certainly rather amusing to find those who profess to be indignant at being placed in the same category with the officers whose duty is the supply and pay of the troops claiming to be classed with these very officers by having honorary rank given them. It is asserted that the abolition of the term "relative rank" has left only two descriptions of rank in the army, substantive and honorary. Surely of these two substantive is the more to be desired, and if Her Majesty decrees that medical officers shall rank *as* the corresponding grades of military officers, this manifestly constitutes substantive rank. The movement, then, would appear to involve a protest against the more desirable rank, with a view to obtain in lieu of it that which will associate the medical officers with those departments whose duties are such as not to expose them to the same dangers on field service as the so-called combatant and as the medical officers. But we are afraid that below the surface there is a desire on the part of a section of the Department to have military instead of professional titles. In our opinion the latter are the more honourable of the two, and when, as it is now proposed, all the privileges of substantive military rank, so far as they can be enjoyed by medical officers, are conferred on them, it would be indeed "an undignified and false position" to lead the public to believe that "they need the support of purely military titles, indicative of and appertaining to a profession to which they do not rightfully belong." If our view be correct—and we firmly believe it to be so—that the Royal Warrant confers substantive rank, the medical officers will be in a much better position than if they were to obtain honorary rank.

IN his opening address the President of the General Medical Council placed clearly before its members the steps which had been taken since the last session to prevent the continued existence of separate licensing bodies in the metropolis. Sir HENRY ACLAND'S action could not be criticised by those who are most jealous of the dignity of the Council, and the profession will remember with gratitude the part he has played in proceedings which have unfortunately been unsuccessful in their result. The satisfaction will always remain that the Council have used their best efforts to carry out the intention of the Act of 1886, and the responsibility of failure must henceforth rest alone upon the Royal Colleges of Physicians and Surgeons.

The arguments in favour of amalgamation have so frequently been discussed in these columns that it is unnecessary to repeat them; it is sufficient to state that the position of the Apothecaries' Society and their right to continued existence were represented by Mr. BRUDENELL CARTER, who again urged the Council to consent to the application of the Society of Apothecaries of London for the appointment of assistant examiners to the Society under the provisions of the Medical Act of 1886.

Sir DYCE DUCKWORTH has certainly failed to make clear the grounds upon which the Royal College of Physicians have refused to accept the advice of the Medical Council. The College, he argued, had power to give a complete qualification in Medicine, Surgery, and Midwifery; it could receive no accession of strength by union with the Apothecaries' Society and, such being the case, no possible good could accrue to the public at large from conjunction with that body. Notwithstanding the possession of this power to give a complete qualification, the College of Physicians have thought it well to combine with the College of Surgeons "for the general benefit." If we have comprehended rightly the intention of the Act of last year, the general benefit was its ostensible aim, and it is difficult to understand that regard for the public interests should, under these circumstances, have indicated the desirability of combination with one body and not with the other. The question has, however, passed this stage, and it only remains for the Council to decide whether they will grant or refuse the appeal of the Apothecaries' Society.

In taking farewell of the Council, Sir HENRY ACLAND commended to their consideration the address which it was proposed should be submitted to the QUEEN on the conclusion of the fiftieth year of her reign. The address properly refers to the great advance which has been made in the health conditions of the people, the appointment of a public health administration, and the good results which have accrued therefrom, as well as the progress which has been made in every department of rational medicine; and it bears witness to the support which the QUEEN has always given to subjects which thus intimately promote the happiness of those over whom she rules. In this last act of his official life, the President will have the warm approval of every member of the profession.

The appointment of Mr. JOHN MARSHALL to the presidential chair was unanimously agreed to by the Council, and will give general satisfaction. It is right that the body engaged in the control of medical education should be presided over by a representative of the highest scientific attainments, and no one is better fitted to undertake the responsible duties of the office than the newly-elected President. The admirable service which Mr. MARSHALL has already rendered to the Council directly indicated him as the successor to Sir HENRY ACLAND, and gives the best promise that its increasing powers will be utilised for the continued advancement of the profession.

Annotations.

"Ne quid nimis."

QUALIFICATIONS UNDER THE NEW ACT.

THE new Medical Act recites:—"A qualifying examination shall be an examination in medicine, surgery, and midwifery held for the purpose of granting a diploma or diplomas, conferring the right of registration under the Medical Acts, by any of the following bodies—that is to say: (*a*) Any university in the United Kingdom or any medical corporation, legally qualified at the passing of this Act to grant such diploma or diplomas in respect of medicine and surgery; or (*b*) any combination of two or more medical corporations in the same part of the United Kingdom who may agree to hold a joint examination in medicine, surgery, and midwifery, and of whom one at least is capable of granting such diploma as aforesaid in respect of medicine, and one at least is capable of granting such diploma in respect of surgery; or (*c*) any combination of any such university as aforesaid with any other such university or universities, or of any such university or universities with a medical corporation or corporations, the bodies forming such combination being in the same part of the United Kingdom." With regard to the above-named clause, we understand that the authorities of the University of London consider that the M.B. degree will be registrable apart from the B.S., because the examination for the former includes the three subjects required by the Act. The wording of the clause, however, seems to be very ambiguous and difficult of interpretation; and it is not easy to see how far "qualifying examinations" will entitle "the following bodies" to place upon the Medical Register such higher diplomas and degrees as the F.R.C.S., M.R.C.P., B.S., M.S., and M.D., which, although nearly invariably granted after "qualifying examinations" have been passed, do not in themselves fulfil the requirements of the Act. It certainly seems not improbable that this unfortunate piece of medical legislation may afford more benefit to the legal than to our own profession. We trust the Medical Council will take steps to inform the profession what is really the true status, as far as registration is concerned, of the various degrees and diplomas. They are, it is true, an executive body, but they can hardly carry out their duties without knowing what is definitely required by the Act. The L.R.C.P. Lond., although single, is a complete qualification under the Act, but, owing to the combination of the Colleges of Physicians and Surgeons, is only applicable to persons commencing medical studies before October, 1884. Colonial M.B.'s requiring a registrable English surgical qualification must now take the L.R.C.P. conjointly with the M.R.C.S.

THE NEW CHARTER OF THE ROYAL COLLEGE OF SURGEONS.

WE may not unfairly claim to have secured at least one crumb of concession from the magnates in Lincoln's-inn, who rule so absolutely and so despotically in all matters concerning the College of Surgeons. The concession, it is true, concerns a matter of comparatively trifling importance. As we pointed out in a recent article, notwithstanding repeated and emphatic expressions of opinion by large numbers of Fellows and of Members, the Council persists in its determination to apply for a new Charter which ignores the Members of the College and leaves them unrepresented on the Council, although they form nearly nine-tenths of the entire constituency and contribute very largely to the College funds. The concession we allude to is this: The Council have decided that an official abstract of the petition for the new Charter shall be prepared and issued to any Fellow or Member applying for the same. They do not think it expedient to have another general meeting to discuss the prepared draft of the Charter, as the subjects to which it relates have already been submitted to previous meetings of the Fellows and Members. We presume that an "official abstract of the petition" will include the new parts of the proposed Charter; for, after all, that is what is really wanted, and that is what the Association of Fellows asked for in the resolutions which they addressed to the Council some time last month. The Association of Fellows at the same time ordered a letter to be sent to the Lord President of the Council begging that the proposed Charter about to be applied for by the College be not approved until the Association of Fellows has had an opportunity, by means of a deputation, of stating and explaining its defects. The Association of Members would do well to address a similar request to the Lord President. It is hardly necessary for us to urge on them also the presentation of their petition. When this is done they must be careful in the selection of speakers. It would be invidious to name some in preference to others; nevertheless, it should not be a difficult task to select the very best men for the purpose, if the memory is allowed to go back to the general meetings of the Fellows and Members that have been held at the College. We shall be very much mistaken and disappointed in our estimate of the Lord President of the Council if the representations of two such deputations—the one representing the Fellows, the other the Members of the College of Surgeons—are entirely without effect. In other words, we much doubt whether the Lord President will sanction a new Charter, which is promoted only, and not even unanimously, by the present Council, and to which a very large proportion of the rest of the body corporate is strenuously opposed. But we shall soon see. We cannot but regret this continued antagonism of the Council to the natural aspiration of the Fellows and Members. So long as it continues, energy and thought are being wasted, of which the corporation has need for purposes of its development. A house divided against itself cannot stand: the College of Surgeons will prove no exception to the rule. The feeling of the Fellows and Members is so widespread, so well founded, and so reasonable, that sooner or later they will succeed in carrying their points, provided only they do not weary of the struggle, but continue to fight in a legitimate manner until their demands are satisfied.

METASTASIS IN ERYSIPELAS.

AN interesting contribution has been lately made to the pathology of erysipelas by Dr. von Noorden (Abstr. by Weichselbaum, *Centralblatt f. Bacteriologie*, No. 18). It is based upon a fatal case of facial erysipelas, in which there was also suppuration in the sheaths of the extensor tendons of the right hand, parenchymatous nephritis, acute oöphoritis of the left side, and acute swelling of the spleen. It was concluded that this was an instance of secondary or metastatic infection of erysipelas. The blood in the cardiac cavities and the pus from the inflamed hand were found to contain large quantities of a streptococcus, which neither microscopically nor by cultivations could be distinguished from S. erysipelatis or from S. pyogenes. Inoculations of the cultures obtained from the blood were made in the ear of rabbits. In three instances only redness, without swelling or suppuration, occurred; in one of these cases only isolated chains of cocci were found in the lymphatics of the ear. In a fourth rabbit there was no local effect, but death followed in two days, and the blood was found to contain numerous streptococci; whilst in the fifth rabbit redness of the ear appeared on the sixth day, and numerous chains of cocci were detected in the lymphatics of the amputated ear;

yet on the twelfth day, when the animal died, no cocci were found in the blood. These variable results led Noorden to conclude that animal experimentation was an insufficient test of the species of streptococcus; and further that, contrary to general opinion, the erysipelas-coccus may under certain conditions gain entrance into the blood. This infection may, he thinks, explain the occasional occurrence of secondary pneumonia; but Weichselbaum states that in such cases the pneumonia is not due to the erysipelas-coccus, but to the diplococcus pneumoniæ, and that it is incorrect to speak of an erysipelatous pneumonia. The case related by Noorden was probably one of pyæmia, due to infection by the streptococcus pyogenes.

MEDICAL JURISPRUDENCE AT KIMBERLEY.

ON Nov. 21st, 1886, a man named Grattan was found dead. He had been attended some time previously by a medical man, who diagnosed "mitral disease of the heart." The brother of the medical man, also a doctor, was called to see the deceased after he had been dead "apparently for some hours." Finding nothing in the history of the case or in the surroundings of the body to cause him to suspect poisoning, he, with the permission of a relative of the deceased, opened the abdomen and examined the stomach, and, feeling satisfied with the negative evidence it afforded, certified that death arose from natural causes. As in all hot climates it is desirable for interment to take place without unnecessary delay, Grattan was buried on the day following his death. According to Dr. Croghan, Mr. Robinson (Grattan's relative before referred to) informed the police of the death within a quarter of an hour of the finding of the body. Subsequently, on information received, the assistant resident magistrate ordered an exhumation, and a second and more complete necropsy was made by Drs. Harris Grimmer, and Cumming. These gentlemen failed to detect heart disease in any form, but discovered old tubercular affection of one lung. Suspecting that poison had been taken or administered, they placed portions of the body in spirits of wine, with a view to preserving them for future analysis. In a letter to the Kimberley *Daily Independent*, Dr. Croghan complains that a preservative was added to the parts to be analysed, but on what grounds we fail to see, as not only was the measure a justifiable one, but it was pursuant to official instruction. The analyst at Cape Town detected prussic acid in the body. This seems a remarkable fact, for Dr. Croghan states that there was no odour of that poison in the room in which deceased was found, either before or after the body was opened. Had prussic acid caused the death—and in the face of the report of the official analyst we are not in a position to dispute it,—undoubtedly it ought to have been discovered at the first necropsy, either by the smell or by the glass plate test, which might have been then and there applied. We have known cases in which this test has succeeded when applied to blood taken from the heart two or three days after death. We have many times expressed the opinion that whenever a person is found dead, the coroner or his representative should be informed of the fact. In this way the medical man frees himself from all responsibility, and shifts it on to the person designed by the law to bear it. It was, of course, injudicious on Dr. Croghan's part to open the body without an official order, but having done so why did he not complete the examination, or at least satisfy himself of the existence of the heart disease that his brother had discovered during life? Negative evidence as to the cause of death is all very well as far as it goes, but it should not be accepted where there is the possibility of getting positive testimony. A wound was found on the wrist of the deceased, which Dr. Croghan asserts was caused by the bite of a dog, but which Dr. Harris says was inflicted by a bullet. Surely such a discrepancy is discreditable to the cause of surgery and of medical jurisprudence. A skilled observer could not fail to settle the point with certainty. There are other matters in this controversy which are rather of personal than of public interest, and therefore we decline to discuss them; but we may say that Dr. Croghan received scant courtesy when he was not requested to attend the official necropsy or informed of the time and place of its performance.

PRESENTATION DAY AT THE UNIVERSITY OF LONDON.

THE most interesting part of Lord Granville's speech on Wednesday last referred to the new scheme which is now ripe for consultation between the Senate and Convocation, and which will be laid before the latter body at an early special meeting. We have already given an outline of these changes, the chief effect of which will bring into the University representatives of associated colleges and of faculties as constituent elements. The maintenance of the high character of the University degrees and the Imperial nature of its work were strongly insisted upon by the Chancellor, his remarks being received with much applause by those present. It is to be observed that Lord Granville failed to refer to the real difficulty before the University. The time of the authorities is already so occupied with the numerous examinations at home and abroad, and the machinery of the University is so entirely devoted to this object, that a suitable constitution for a local teaching university cannot be framed, such as is wanted in London, as well as an Imperial examining board. It must surely be seen that the functions of the two bodies are quite different, and that they require separate and distinct organisations. The proposed scheme only touches the fringe of the great educational question in London which so urgently presses for a full and proper solution.

VIVISECTION IN 1886.

FROM the Home Office report, just issued, it appears that the experiments on living animals made last year under the provisions of the Cruelty to Animals Act numbered 1035. The total number of persons holding licences is sixty-four (forty-eight in England and sixteen in Scotland), and of these fifty-four have performed such operations in twenty-one separate buildings, of which eight are in London, eight in the provinces, and five in Scotland. Notwithstanding that these experiments come under the term "vivisection," as commonly used, a comparatively small proportion only were attended with pain to the animals experimented upon. In 458 cases the use of anæsthetics was dispensed with, on the ground chiefly that, the operation consisting merely in the slight puncturing necessary for inoculation, more distress and annoyance would be occasioned to the subject of the experiment by the administration of a narcotic than by the operation itself. Of the remainder, 213 cases were subject to the condition that the animal should be killed before recovering consciousness, in which cases, therefore, no pain at all was inflicted; while forty are reported as being painful in character. Even in these instances, however, the amount of pain inflicted was generally but small. Upon the whole, the official record warrants the belief that the demands of science have within the past year been reconciled with the infliction of a very small total of pain and inconvenience upon its victims. When our business and our sport come to be conducted with equal consideration for the brute interests involved, we shall be able to congratulate ourselves on having deserved well indeed of the lower creation. One passage in Mr. Erichsen's report suggests a doubt whether the Home Office is wise in the latest addition to its code of

vivisection rules. "It has been decided," we read, "that in future, if after the main result of the experiment has been attained pain be occasioned, the animal must be killed under the influence of an anæsthetic." Surely this is a most ill-judged regulation. If all that remains is to kill the animal, the most expeditious must usually be the most merciful method of procedure. To prolong a needless agony which a single stroke might terminate, while narcotics are administered only for the purpose of killing under the influence of an anæsthetic, seems to be the very pedantry of humanitarianism. The fact is that rules cannot be framed to supersede in every detail the head and heart of the operator.

THE METROPOLITAN ASYLUMS BOARD.

AGAIN another week has passed without a single case of small-pox being removed to the metropolitan hospitals, and again at the last meeting of the managers was the cry raised that the hospital ships ought to be closed. The managers have, however, a very distinct duty to perform—the removal from London of all cases of small-pox that can be removed; and the hospital ships essentially give opportunity for this to be done. Later, when the managers have learned how small-pox hospitals may be built which will not act as centres of infection, the natural course will be to utilise those in London, but at present there is no alternative but to adopt the course they have determined upon. The guardians of Islington, who have no public health functions, have protested against the expense of keeping open the hospital ships. The managers have, however, become (not of their own seeking, but because of the neglect of other bodies) the hospital providing authority for public health purposes; they must do more than house sick people—they must keep in readiness the machinery for isolating cases of infectious disease, and thus aid in the prevention of epidemic prevalence. The money spent in maintaining their hospitals in a state of preparedness better serves the public interest than the larger sum which would be required for providing accommodation for numerous cases which would result if small-pox were treated in London. The statement which was made by the Islington representative, that every small-pox patient costs £800, simply conveys to the minds of those conversant with hospital administration the smallness of the number of cases under treatment. The letter of the Islington guardians has now been referred to the Ambulance Committee for consideration and report; their decision will be freely accepted by the ratepayers, for no member of the board more thoroughly possesses the public confidence than the chairman of this committee.

RABIES IN DEER.

THE recent outbreak of rabies among the deer in Richmond Park will perhaps direct attention to the hitherto almost entirely overlooked destruction caused by this disease in other than the human and canine species, and afford an additional reason for strenuous efforts to rid the country of it once and for ever. Almost daily we receive reports of heavy losses sustained among horses, sheep, and cattle, through their being inoculated by rabid dogs; and this incident in Richmond Park is far from being a novel one. In Fleming's "Animal Plagues" and in his "Rabies and Hydrophobia" allusion is frequently made to the occurrence of the malady in deer, as well as in foxes, wolves, and other *feræ naturæ*. It is well known that of all the animals in India the one most liable to rabies is the jackal, and that it generally is the medium of infection; as when rabid it has no fear, and becomes extremely aggressive. It appears that in last October, when rabies was prevalent in the suburbs of London, a rabid dog was seen in Richmond Park, and it was noticed that some of the deer were bitten by it. In the course of time one or two of these creatures showed the disease, the symptoms, however, being more of the paralytic than the furious form, and were therefore at first misleading, the presence of rabies not being suspected. Soon others became affected, however, and both forms of the disease were manifested, those which were furious biting and butting their fellows. Whether the bites of the rabid deer were productive of rabies in those bitten by them, or whether all had been infected by the dog, cannot be clearly ascertained; certain it is, however, that a large number of them have died, or been killed because of being affected. Some accounts report considerably over a hundred lost in this way, and measures of isolation and segregation have probably prevented further mischief. That the disease was rabies there is no reason to doubt, as inoculation with portions of the brain and spinal cord of deer which had perished from it has produced the malady in rabbits. These experiments were carried out at the Brown Institution. It is to be hoped that adequate prophylactic measures, and notably the systematic adoption of muzzling of dogs, to which we advert in another column, may be enforced, so that in the course of a year or two we may hear no more of such a terrifying scourge, which has been allowed free play far too long. It now exists in at least six counties in England.

SMALL-POX AND VACCINATION.

THE determined opposition to the Vaccination Acts at Leicester has led to a sad exhibition of violence in that town. According to reports in the daily press, an auctioneer was assaulted and driven into the police-station because he had attempted to sell the goods of a man who had refused to pay a penalty inflicted by a magistrate for non-compliance with the Vaccination Act. Leicester will one day have serious cause to regret the reckless wilfulness with which it refuses to learn that vaccination, and vaccination alone, will protect against small-pox. Not long since we pointed out that the system of isolation which is rigorously practised in Leicester is dependent for its efficacy upon the vaccination and revaccination of the hospital attendants. Leicester, therefore, is obliged to rely upon vaccination; but the time will certainly come when even the method of removing to hospital, not only the sick but also those who are exposed to them, as practised in that town, will fail to protect sufficiently the population. The story that comes from Marseilles might be studied with advantage. This town resembles Leicester in so far that there is no compulsory enforcement of vaccination. It is now stated that the mortality from small-pox among the Marseillaise was last year greater than that assigned to any other cause except diseases of the respiratory organs, which but slightly exceeded it. The total mortality from small-pox was said to be over 2000 in a population of 375,000.

HEREDITY.

WE read in a contemporary that at the request of the Crown Prince of Germany, Professor Virchow has endeavoured to trace in the long line of the Hohenzollern Princes persistent physiognomic peculiarities such as have been observed in the Stuarts, Bourbons, Hapsberg, St. Albans family, and many others; and he is said to have found that the physiognomic characteristics of the Hohenzollerns seem to have split up into several types, which are in some cases strikingly apparent, and then disappear for some generations. Evidence of a like kind might, we imagine, be obtained readily from any family that has long been settled in the same place, though in these days of change of locality it is not always easy to trace family peculiarities for more than a generation or two.

THE CONJOINT COLLEGES AND A DEGREE IN MEDICINE.

A PETITION has been sent in to the authorities of the Royal Colleges of Physicians and Surgeons of London by the teachers in the metropolitan medical schools praying that earnest endeavours may be made to obtain the power of granting a degree in medicine. There are four qualifications or conditions in the petition, to one or more of which each signer has testified his assent—viz., (1) that the degree should be granted only to those who have received some portion of their medical education in London; (2) that some addition should be made to the present examinations in arts; (3) that some additions should be made to the present examinations in science; and (4) that some addition should be made to the present examinations in professional subjects. The first of these conditions finds great favour with the signers of the petition, and the other three are also well supported.

ALMÉN'S TEST FOR SUGAR.

Of all tests for sugar in urine, Fehling's is undoubtedly the most satisfactory. The only objection that can be urged against it is the difficulty of preserving it a sufficient length of time, so that unless recently prepared it may lead to fallacious results, owing to stale solutions having a tendency to throw down the suboxide of copper spontaneously when heated. This of course is a great disadvantage to practitioners, who may be seldom called upon to use the test, and are at a distance from manufacturing chemists from whom they may procure a fresh supply. To remedy this Professor Alméen of Upsala has improved the old bismuth test for sugar, and has prepared a solution which has the advantage of keeping unchanged for years, and being at the same time an extremely delicate test for sugar in urine. It consists of a solution of bismuth subnitrate, with caustic soda and potassio-sodium tartrate. In testing for sugar, the albumen, if present, must be first removed by precipitation by heat and acid, and one part of the solution treated with ten of the urine, when if sugar is present the bismuth will be deposited in a metallic state. The test is sufficiently delicate to detect sugar in the proportion of only ·05 per cent. This test, as we have already said, is chiefly valuable on account of its preservative qualities, keeping well on board ship and in hot climates, though we doubt if it will supersede the use of Fehling's solution, especially as the latter is now supplied in hermetically sealed capsules which preserve the test for a considerable time.

DENTAL DISEASE IN SAVAGES.

DR. WHITNEY writing from Honolulu, describes in the *British Journal of Dental Science* the bleached skeletons of Kauai, and points out that it is a great mistake to believe the "noble savage" enjoys an immunity from suffering due to disease affecting his teeth; in spite of the simple nature of his food and his out-door life, he still has toothache. Dr. Whitney found both superior and inferior maxillaries, but none had complete dentures. This does not take into account the loss of the anterior lower and, less frequently, upper teeth, which were knocked out to express their grief at the death of a favourite chief, as was their universal custom in those times. Some had lost but one or two teeth, others the greater portion of the molars; while not infrequently the anteriors showed decay upon their surfaces, or had left the traces of alveolar abscess. In several cases traces existed of much suffering, caused by the eruption of the inferior third molars, and in several by the superior. One specimen showed the ravages of salivary calculi, but, as a general rule, there was but little tartar upon the teeth. No instances of erosion were met with, but many of the teeth were much worn by use. There was one case of ankylosis of the jaw. Several had exostosis. The effects of alveolar abscess were very frequently seen, sometimes leaving but a small opening through the outer plate of the jaw, in others the whole outer plate being gone. Dr. Whitney found the antrum to vary greatly in size. On the whole, the teeth were set in a regular arch, but there were a few instances of irregularity. In uncovering two skeletons lying side by side, it was seen that both were females, one much older than the other, and in them the peculiar dental irregularity of the one was exactly repeated in the other.

CHOLERA IN SOUTH AMERICA.

CHOLERA is believed to have ceased as an epidemic in the various parts of South America that have been attacked. Its ravages in some districts have been very severe. Thus, according to local information, there had been in Santiago, up to about the end of February, a cholera death-rate equal to 10,000 per million living, as compared with a rate of 2422 and 913 per million during the epidemics of 1848-9 and 1854 respectively in England and Wales. The city stands upon an alluvial soil largely saturated with sewage matter, which courses about in open drains, and its sanitary condition generally is such as to serve as a strong predisposing cause to the spread of such a disease as cholera. Having regard to the wide extent of the infected area, and to the fact that the conditions so largely favour the propagation of the infection, there are strong grounds for fearing that with the return of summer weather a recrudescence of cholera may take place, and that the present abatement is due rather to the winter period than to the adoption of proper precautions in favour of improved healthiness. In Santiago, especially, there is urgent need for a proper system of sewerage and drainage, and it is to be hoped that the authorities will not defer providing it until they have had another fatal lesson in the form of a renewed cholera epidemic.

THE CIVIL WAR, 1643.

HISTORIANS have advanced from time to time many conjectures to account for the slow conduct of the war between Parliament and the Crown during its earlier stages. Some have thought that the leaders on both sides equally feared a decided success; others have attributed the delays and failures in strategy to the incompetency of the generals or the undisciplined state of the troops. None, however, seem to have hit the real reason, which, nevertheless, is graphically described by an eye-witness, the celebrated Dr. Thomas Willis, who was with the King at Oxford. According to Dr. Willis, neither party after the siege of Reading were able to take the field for many months, owing to the great mortality in both camps, which "grew so grievous that in a short time after, either side left off, and from that time for many months fought, not with the enemy, but with the disease; as if there had not been leisure to turn aside to another kind of death, this deadly disease increasing, they being already overthrown by fate, and as it were falling down before this one death." It is strange that this statement should so long have escaped the notice of historians, especially in these days of minute research; but, now that attention is drawn to it, there can be little doubt that many circumstances will be explained that have hitherto looked suspicious in the conduct and action of some of the commanders. Thus, how could the Earl of Essex make a vigorous campaign when the London apprentices, who formed the bulk of his regiments, were dying so fast that, as Willis distinctly says, he lost the great part of his men, and had to remain pitched in camp on the banks of the Thames. The excessive mortality also accounts for

the surrender of Reading by the King's officer, who has been generally credited with treason; yet it was during the siege that the camp fever first broke out, and the garrison on their surrender carried the disease with them to the main body of the King's army, who suffered "not much less" than Essex's camp on the Thames, which again accounts for the supineness of the Royalists and their hesitancy in not taking advantage of the condition of the enemy. For, as Willis describes it, the foot soldiers (which it chiefly invaded) being packed together in close houses in the villages, "they filled all things with filthiness and unwholesome nastiness and stinking odours, they fell sick by troops, and as it were by squadrons." Willis is particular to tell us that this great mortality was due to typhus—a true camp fever, and not of the nature of the plague; and that the epidemic did not spread beyond ten miles of the infected camps, the surrounding counties being healthy.

EPITHELIOMA OF THE KIDNEY.

THE proceedings of the Paris Anatomical Society (*Progrès Médical*, April 23rd) make mention of the histological examination by M. Cornil of a rare tumour of the kidney removed during life by Dr. Pean. The portion examined included a cyst filled with blood. This cyst had a wall of new growth, surrounded by the capsule of the kidney, beneath which atrophied anatomical elements of the organ were seen. In the new growth were seen hæmorrhagic areas and calcified fibrous tracts; and budding into the cyst were grey, semi-transparent vegetations containing small ovoidal cavities, lined by a single layer of clear epithelial cells, with nuclei near their base. The lumen of the cavities was empty, and their wall contained capillaries arising from vessels running mostly longitudinally. The resemblance to uriniferous tubules was striking. In places there were cavities of larger size filled with red corpuscles, suggestive of intertubular hæmorrhage. Some of the cells were filled with fat-globules, others with fat-crystals; and the intermediate tissue contained fat or calcareous material. The case is recorded as "hæmorrhagic epithelioma"; and M. Cornil pointed out that it belonged to the class described by Sabourin under the head of "adenoma," growths which, although structurally simple, were clinically to be regarded as cancers. Nevertheless, they generally remain confined within the capsule of the kidney and undergo calcareous transformation.

THE ADULTERATION OF PEPPER.

THE study of pepper adulteration has progressed considerably of late. Dr. Campbell Brown of Liverpool has described an adulterant which has hitherto been little known. This is the great millet (*Sorghum vulgare*), one of the most important of the Indian cereals. In Professor Church's recent and valuable book it is described as "joár," but several synonyms are given as well as excellent illustrations. Dr. Campbell Brown describes it as "dhoura," which is perhaps the name by which it is known in the English market. Of course, its addition to pepper is a mere common fraudulent adulteration. Another valuable contribution to our knowledge is contained in some articles which appeared last month in our new contemporary, *The Produce Markets Review*. In these articles the fashionable adulterant miscalled *poivrette* is described, and its influence on the trade discussed. Poivrette is obtained by grinding waste olive-stones, and is totally useless as a substitute for pepper. The author concludes from a study of trade statistics that some 600 tons a year of adulterants have been used in the pepper for the last year or two. The actual adulteration has, the author argues from good evidence, been effected by the wholesale grinders, and not by retailers, who were probably ignorant of it. If the adulterant used was poivrette, the annual profit which has accrued to a presumably small number of dishonest seed grinders, has on the above quantity amounted to £67,000. This ought to stimulate public analysts to increased exertions. The subject of long pepper, to which we lately alluded, is also discussed in these articles. Long pepper, it appears, sells for 6½*d.* a pound, while white pepper costs 11½*d.* As we before pointed out, long pepper is more or less similar, though greatly inferior, to true pepper. The temptation to use it for fraudulent purposes is obvious.

DR. PEACAN'S TREATMENT OF CHOLERA.

DR. L. PEACAN of Buenos Ayres warmly recommends a plan which he has for many years past pursued with much success in the management of cholera. When a typical case with vomiting and diarrhœa comes before him, he immediately applies a cautery behind the right ear over the condyle of the lower jaw, with the object of stimulating the pneumogastric, and thus paralysing the action of the sympathetic on the abdomen. He then administers six centigrammes (sixth-sevenths of a grain) of calomel, which dose is repeated every five hours. Half an hour after taking the first of these powders a mixture is commenced consisting of phosphoric acid, carbolic acid, tincture of opium, tincture of ginger, chloric ether, and mint-water, which is supposed to arrest vomiting and diarrhœa, to allay thirst, and to calm spasm—being, indeed, he states, sufficient to cure mild cases by itself. When the cramps are severe, ten drops of Battley's sedative solution of opium is added; and when there is marked prostration of the nervous system, tincture of coca. If the diarrhœa continues, three grammes (forty-six grains) of glycerole of tannin are given in coffee three or four times a day, and forty centigrammes (six grains) of Dover's powder for three or four nights in succession. The patients are allowed to have as much sulphuric acid lemonade as they care for. In addition to internal medication, warm frictions and sinapisms are applied, especially over the epigastrium.

THE ANATOMICAL SOCIETY.

THE inaugural meeting of this Society was held on the 6th inst. Professor Humphry was elected to the chair, and letters expressing approval were read. It was then proposed "That an Anatomical Society be formed, and that it be called the Anatomical Society of Great Britain and Ireland." This resolution was carried. Next, it was carried *nem. con.* "That the scope and object of the Society be the anatomy, embryology, and histology of man and of animals, in so far as they throw light upon the structure of man." Professor Humphry was then elected president, and delivered an address, which will be found in another part of our present issue. Mr. C. B. Lockwood was elected hon. secretary, and a committee was appointed to report upon the constitution of the Society. The first meeting will be held at an early date and duly announced.

DANGERS OF AIR-GUNS.

AIR-GUNS are dangerous playthings. Last week one of the gentlemen cadets at Woolwich aimed one of these weapons at a boy who was carrying a basket near the academy, not thinking that the air-gun could carry fifty yards, which was about the distance at which the boy was. However, the little bullet, which was about the size of a swan-shot, hit the boy on the cheek and embedded itself in the masseter, where it will probably do no great harm. Had it entered the eyeball, the accident would have been fraught with much more serious consequences. It is to be hoped that this will prove a warning to all persons who indulge in such dangerous toys not to point them except at a target.

INFANT MORTALITY AT WILLESDEN.

DR. BRANTHWAITE, in his annual report on the health of the Willesden Local Board District, draws attention to a matter of grave importance. He has on more than one occasion directed notice to a large infantile mortality. During 1886 the number of deaths under one year of age amounted to 167 on every hundred births, and in view of this special inquiry was made into the matter. The result has been to show that some very decided action is needed under the provisions of the Infant Protection Act, and that this fatality is in large amount brought about in the case of infants born in a metropolitan lying-in hospital where single as well as married women are received. During 1886 there occurred six deaths under two years of age in one house, two deaths under three months in a second, two deaths under one month in a third, and in each of seven other houses a single death occurred. In all these instances the children were in some way or other connected with the lying-in hospital referred to. In seven other cases of infantile deaths the children came from elsewhere. There is, of course, no suggestion that any hospital or other authorities are in any way responsible for this fatality; but it seems very obvious that a large number of so-called "nurse" children are sent into the Willesden district, and that a very undue proportion of them die there. Dr. Branthwaite very properly advises that the legal adviser to the local authority should at once take such action as may be possible in order to bring the many houses involved under such control as can be brought to bear upon them. We hope, in the next report, to see that some very decided action has been taken in the matter.

EFFECTS OF HOT-AIR BATHS ON ASSIMILATION.

IN a paper by Dr. Garin of St. Petersburg on the effects of hot-air baths on healthy subjects, and on those suffering from kidney disease, it is stated, as the result of his researches, that the sudorific action of hot air produces an increase in the quantity of the nitrogenous elements of food assimilated. In healthy subjects it was found that after a course of hot-air baths lasting for five days the nitrogen assimilated was greater than before the baths, though less than during their continuance. This, however, did not appear to be always the case with patients suffering from nephritis. Again, the ratio of the urinary nitrogen to the nitrogen assimilated—that is to say, the nitrogenous metabolism—was decidedly increased both during and after the baths, the subsequent effect being more marked in the case of nephritic patients than in that of persons in good health, though not in either case so great as the effect observed while the baths were in progress.

THE REPUTED SUICIDE OF SCORPIONS.

A MEMOIR upon this subject, of much interest and value, has just appeared in the Proceedings of the Royal Society. A statement has long passed current in works on zoology that a scorpion when placed under such circumstances as to preclude the possibility of escaping with life—such, for example, as surrounding it with a ring of red-hot embers—will deliberately sting itself upon its own back, and put an end to its sufferings by destroying its own life. This legend, which is believed to emanate from Spain, though denied by some, has received the countenance of several respectable authorities. It has now been put to the proof and ascertained to be incorrect by the scientific investigation of Dr. A. Bourne, the Professor of Biology in the Presidency College, Madras. It may be noted, in the first place, that there are several species of scorpions, and, as Professor Ray Lankester (who has himself made some experiments upon the point) remarks, it is important that the species should be determined, since one species may act in this way whilst others may not. The first question Dr. Bourne set himself to solve was the power of the scorpion to sting itself at all, and he found that the movements of the sting are remarkably free—so much so, indeed, that if a dead but still limp scorpion be taken, the last four segments of the tail are about the only portions of the body where the scorpion is incapable of stinging itself. Further, when a scorpion is placed in very unpleasant circumstances it not unfrequently lashes its tail about and causes actual penetration of its own integument. But numerous experiments performed, both by stimulating scorpions to fight and by artificially injecting the poison, which is easily obtained from the gland by pressure into the bodies of these animals, show that the poison of a scorpion is quite powerless to kill the same individual of the same or even of another species. Experiments made in the same way with other animals show that the poison is very rapidly fatal to a thelyphonus, which is an animal closely allied in form and poisonous faculty to a scorpion, less rapidly to a spider, and much less rapidly to an insect. On injecting the poison into the leg of a cockroach or of a cricket the injured leg became paralysed, but no pain appeared to be produced. The slow and comparatively feeble action of the poison on insects Dr. Bourne attributes, with great probability, to the very inefficient circulation of the blood in that class as compared with arachnida. When two scorpions fight, they may repeatedly be observed to sting one another with little or no effect, and the stronger kills the weaker by actually pulling it to pieces with its cheliceræ, and then proceeds to feast upon its victim. On making experiments with heat, as by concentrating the sun's rays with a burning-glass upon the animal's back or elsewhere, the animal lashes out with its sting and endeavours to strike away the source of irritation. If placed in water at 43° C., scorpions quickly die; and they do not appear to be able to stand a dry heat much above 50° C., falling into a kind of heat coma and becoming very sluggish.

"THE SPECTACLE MISSION."

A PROVINCIAL contemporary contains an account of a new missionary enterprise—one for distributing spectacles among the poor. This may seem at first sight a very prosaic thing to do, but we recognise in it the very genius of kindness. "I was eyes to the blind" was one of the most excusable boasts of Job in his moments of pardonable complacency. Such may be the satisfaction of Dr. Edward Waring of Maida Vale, who is credited with initiating this piece of benevolence among the inmates of St. Giles's workhouse and the Cleveland-street Sick Asylum years ago. Such a service implies much trouble and time. It is of little use to supply spectacles to the poor without much personal trouble to suit the glasses to sight. We can only hope that Dr. Waring's example will be fruitful, and that the intolerable irksomeness of life in those who have the disposition to work without the means of doing so will be extensively mitigated.

MASSAGE IN CATARRH OF THE BILE-DUCT.

DR. GOPADZE publishes in the Proceedings of the Caucasian Medical Society an account of fourteen cases of catarrh of the bile-duct in which massage proved of great service. The symptoms were loss of weight, malnutrition, eructations, tympanites, diarrhœa or constipation, admixture of blood with the stools, loss of appetite, &c. In a week's time from the commencement of systematic massage a marked improvement invariably took place. The author complains that massage is as yet but very little practised in Russia, and that its use is chiefly confined to surgical clinics. Professor Manassein, the editor of the *Vrach*, replies, however, that massage has been for some time past largely practised

in his own and many other medical clinics, and that the three graduation dissertations which have treated of the subject, one of them from the pen of Dr. Gopadze himself, were all founded on work done in the physicians' wards. Indeed, though Dr. Gopadze may be inclined to underrate the attention bestowed on massage in Russia, the back numbers of the *Vrach* and THE LANCET would show him that the observations of himself and his countrymen on its value in many different affections are recognised both in Russia and abroad as worthy of attention.

THE CENTENARY OF COLUMBIA COLLEGE, NEW YORK.

LAST month Columbia College celebrated with appropriate ceremonies the one hundredth anniversary of its revival after the Revolution. In 1787 it was reorganised by an Act of the State Legislature, which confirmed the Royal Charter granted in 1754 for the establishment of a College in New York, and also changed the name of the institution from King's College to Columbia College. The medical school was first established in 1767, and strengthened in 1787 by the appointment of a dean of the Faculty and several professors. In the beginning of the present century Dr. David Hosack was professor of botany and materia medica. In 1813 the school was consolidated with the New York College of Physicians, which remained entirely distinct from Columbia College until 1860, when it became formally recognised as the medical department of the institution. The number of medical students at present in attendance is 604, and the munificent Vanderbilt benefactions will without doubt eventually, if not sunk in bricks and mortar, make the school the most completely equipped and extensively appointed centre of medical teaching in the United States.

INTELLECTUAL EVOLUTION.

"INTELLECTUAL EVOLUTION, as represented by modern civilisation, will, by overcrowding, the unequal distribution of wealth, and social changes incidental to these two factors, lead to an increase of the tendencies to disease, and therefore to physiological dissolution," writes Dr. F. W. Mott in the *Edinburgh Medical Journal* of April, 1887. The writer has tried to bring together facts tending to prove that a "racial" existence, like that of the units of which the race is composed, has periods of infancy, youth, maturity, old age, and decay; and that the same factors which lead to early decay and dissolution in individual organisms also tend to the same result in the race. Dr. Mott throughout lays stress on the necessary and simultaneous inter-action and inter-relation, or mutual tension, between evolution and dissolution, growth and decay, rise and fall, development and degradation.

PROPOSED SYSTEMATIC MUZZLING.

THERE seems now to be a more general recognition of the advisability of the adoption in a systematic manner of the muzzling order, and doubtless ere long we may expect the re-issue of the edict from Sir Charles Warren's official centre; but this time the order should apply to the whole of Great Britain, and should be put in force in a thorough and rigid manner for a period of at least six months. The necessity for the adoption of this measure is based on the ground of an increase of rabies and allied disorders, together with its consequences to human beings, as proved by the published statistics; and the increasing confidence on the part of the public in the efficacy of the muzzle, as well as in its real kindliness, will serve to facilitate the administration of the police order. The rare immunity from rabies and hydrophobia enjoyed by Berlin for a period of nine years, owing to the stringency with which the canine code is carried out, affords not only irrefragable proof of the general mode of origin and spread of rabies, but is in itself a complete argument in favour of the adoption of a similar code.

THE DELICACY OF SPECTROSCOPIC REACTION IN GASES.

AT the suggestion of Sir Henry Roscoe, Mr. T. W. Best has made an interesting series of experiments on this subject which has recently been communicated to the Manchester Literary and Philosophical Society. The author mixed the pure and perfectly dry gases in eudiometers provided with aluminium electrodes, which were connected with an induction coil and Leyden jar. The light of the discharge was then focussed upon the slit of a one-prism spectroscope. The only gases experimented upon were hydrogen, nitrogen, and oxygen, but it may be hoped that others will shortly be examined. When nitrogen is added to hydrogen at ordinary atmospheric pressure, the least quantity of the former element that can be detected is 1·1 per cent. At the same pressure as little as 0·25 per cent. of hydrogen can be detected in nitrogen. This curious difference is also observed with mixtures of nitrogen and oxygen. As little as 0·8 per cent. of nitrogen can be detected in oxygen, whereas not less than 4·5 per cent of oxygen gives a visible spectrum in nitrogen. At lower pressures the results are somewhat different, the least quantity of nitrogen perceptible in hydrogen being at ten inches and a half 3·6, and at three inches and a half 2·5. The experiments are well worth extending. The limits of delicacy with gases containing carbon would be very interesting.

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL.

OWING to the considerable increase in numbers of the students attending the above school, it has been found necessary to enlarge the new laboratory in which the course of practical physiology is conducted. Accommodation has been provided for thirty additional students, and the lighting of the laboratory has been greatly improved. Two rooms have been fitted up, one as a lecturer's room and the other as a workroom for the demonstrator and assistants. These alterations, with those made when the anatomical department was enlarged and improved some eighteen months ago, have involved large expenditure on the part of the Medical School.

UNDER ETHER.

THE effects of ether and other drugs when administered as anæsthetics have been often and carefully studied by the usual methods of scientific observation, but we do not remember ever having seen such a detailed description of the subjective impressions thus produced as that which has been recorded recently by an American practitioner, Dr. G. E. Shoemaker. In his case the anæsthetic used was ether, and it is curious to notice how the stage of stupor seemed to form, as it were, a prolongation of the earlier stage of excitement, and how some trace of the latter seemed always to persist as a partial wakefulness of intellect, though without the sense of pain, till at last it drew him through a play of intoxicated fancy out of his torpor and back to the daylight of clear intelligence. His description does, indeed, suggest a doubt whether the degree of anæsthesia attained in this instance was as deep as usual. He remarks that, though there was no pain, a most disagreeable sensation never left him. He seems also to have been dimly aware that something was being done to him which was neither right nor pleasant. A confused whizzing sound and a visual sense of oscillation were perceived,

and he could register mentally the beginning of the return to consciousness. It may be doubted whether such a degree of intelligent, even though drowsy, perception is consistent with really deep etherisation. Had chloroform been employed, it is still less probable that the stimulant property possessed by the drug should so far have survived in the narcotism which it initiates as to awaken or maintain any such distinct mental impressions. Ether, as is well known, possesses this property in a greater degree than chloroform. It is this which constitutes at once its chief disadvantage as an effectual anæsthetic and its chief recommendation on the ground of safety. Probably the method of producing anæsthesia most likely to satisfy its claim to acceptance as compared with that of its more powerful rival is its use in combination with chloroform, a practice now far from uncommon.

THE COURT PHYSICIANS.

SIR WILLIAM GULL, being the senior Physician Extraordinary to the Queen, succeeds the late lamented Dr. Wilson Fox as one of the Physicians in Ordinary. Dr. Reid, who has been for some years Her Majesty's Resident Medical Attendant, has been appointed one of the Physicians Extraordinary. A contemporary society journal states that Sir William Jenner only attends the Queen when "Her Majesty is really unwell." As a matter of fact, Sir William sleeps at the Castle almost every Saturday night when the Court is at Windsor.

IMPORTANT DECISION AS TO SCHOOL CLOSING.

IN commenting in a recent issue on the annual report of the medical officer of health for Barnsley, we drew attention to the circumstance that one large elementary school had failed to comply with the notice to close which was issued by the sanitary authority on account of the prevalence of scarlet fever. We have since then received information from Dr. Sadler to the effect that the school, though a voluntarily supported one, received an annual grant from the Education Department, and that the failure to comply with the request of the sanitary authority was brought under the notice of that department and also of the Local Government Board. Some little time was allowed to elapse before the sanitary authority heard again, but they have now been informed that the managers of the school have been communicated with, and that in consequence of their neglect the Education Department decline to make any grant to the school this year. In the case of such a school, this amounts to the imposition of a very substantial pecuniary fine, and it is well that both sanitary authorities and school managers should know that the clause of the Education Code which deals with this subject is intended to be acted upon, and that any failure to comply with the authorised notice of the authority will be met by the loss of the Government grant.

TUBERCLE IN THE COW.

THE cowkeepers and farmers of Hull have had their attention drawn to the dangers of tuberculosis among their cattle by Dr. J. W. Mason, medical officer of health, who delivered an interesting lecture on the subject at a meeting of dairymen last week. Dr. Mason urged upon them the importance of slaughtering all animals affected with this disease, and stated that while in the early stage the meat could be eaten, in the later it was only fit to be destroyed. He discussed the risks to milk drinkers, and pointed out that Hull received 40,000 pints of milk per day from cows living in the town, and an equal amount from cows outside, over whom the corporation had no authority, and he supported the view of Dr. Hime and the Bradford Corporation that authorities ought to be able to exercise control over neighbouring areas supplying the town population with milk. Members of the Association who joined in the discussion expressed their desire for legislation which would enable infected animals to be seized and slaughtered, and would add tuberculosis to the list of diseases dealt with under the Contagious Diseases (Animals) Act. The subject is obviously one of great importance, for although there is much reason for thinking that human and bovine tubercle are not identical, Dr. Creighton has adduced considerable evidence to show that man may suffer from the bovine variety. Certainly the milk of tuberculous cows ought not to be sold, and the only safe course is to slaughter all animals infected with the malady.

THE REGISTRATION OF ARCHITECTS.

ARCHITECTS have been slow to claim the rights which have long since been accorded to other professions; but at last a movement has been made which will in all probability end in the granting of licences to practise to those architects who are competent to perform the responsible duties which devolve upon them. A large meeting was held at St. James's Hall on the 4th inst., which was called by the Architectural Federation Committee, who had drafted a Bill which in principle resembles that of the Medical Acts. It is probable that some modification of this measure will be required before its acceptance is sufficiently general to enable it to become law. With the intention of the Bill we are entirely in accord; there is reason for the public to be able to distinguish between qualified and unqualified architects, as there is also for them to be able to know the professional position of medical men. It will doubtless be necessary to place upon the register in the first instance many who although now engaged in practice, have but scanty claim to this position; but this is inevitable, and in course of time the difficulty will be overcome. The intimate relation which, it is now recognised, exists between ill-health and imperfect house construction renders the Bill deserving of the support of the medical profession.

LUMINOUS PAINT IN THEATRES.

HERR STEHLE, the Government Inspector of the Royal Bavarian Court Theatre, has, according to *Iron*, given high testimony to the use of luminous paint as a safeguard against panic in theatres. Any explosion or disaster with gas leaves the exit passage of the theatre in total darkness, and even if additional oil lamps were used, they would probably be extinguished by the air concussion. In the above-named theatre inscriptions in luminous paint are suspended over the exit passages, which direct the audience to the "way out" (*Ausgang*). "These placards, in spite of being exposed to the very poor light of the corridors in the daytime and the gaslight in the evening, are so luminous after the gas has been turned out that anyone can gain the stairs in each corridor without difficulty." The precaution is so simple and inexpensive that we wonder it is not immediately adopted in all theatres. Indeed, we see no reason why its use should not be made compulsory. Surely some provision of the kind might be included in the Theatres Bill now before Parliament.

DEATHS OF EMINENT FOREIGN MEDICAL AND SCIENTIFIC MEN.

THE deaths of the following foreign medical and scientific men are announced:—Dr. Johann Anger, the well-known Carlsbad "bath-physician," at the age of seventy-two.—Dr. Fleitas y Lemus, Director of the Hospitale de Higiene in Havana.

SURGICAL OPERATIONS ON THE BRAIN.

AT the meeting of the New York Neurological Society, held on April 5th, two interesting examples of "cerebral surgery" were recorded. The first was the case of a man forty-two years of age, who suffered from left lateral hemianopsia, slight dilatation of the left pupil, awkward gait, and double optic neuritis. A large tumour in the right occipital lobe was diagnosed, and Dr. Weir proceeded to remove it. The mass removed weighed five ounces and a quarter, and the operation was attended with very troublesome hæmorrhage, for which the wound was plugged. Unfortunately the bleeding recurred, and the man died from it. The other case was one of unilateral (left) convulsions, followed by paralysis of the left side of the face, then of the left arm, and then of the left leg. A tumour was diagnosed in the right motor area, and the skull was opened and the brain explored with a hypodermic syringe without any result. The patient died, and at the necropsy three cysts were found lying close together in a line deep in the white matter of the right hemisphere, and "in a position to affect the face, arm, and leg centres."

ACTION OF CALOMEL ON BILE.

AN account of a number of observations made in the laboratory of Professor Tumas in Warsaw, and published in the *Vrach*, points to the antiseptic action of calomel on bile. It was found that when fresh bile was mixed with calomel and kept at the temperature of 12° R. (59° F.) for several days its smell and its colour changed but little, whereas another portion of the same specimen, unmixed with calomel, kept under similar conditions, rapidly became putrid and turned to a reddish colour. Again, a smaller admixture of calomel produced a partial effect only. This antiseptic effect appears to be due to the conversion of calomel in an alkaline medium into suboxide of mercury, which converts bilirubine into biliverdine—thus, $C_{16}H_{18}N_2O_3 + 2HgO = C_{16}H_{18}N_2O_4 + HgO + 3Hg$, mercuric oxide and metallic mercury being also formed. If an experiment is made on alkaline bile by mixing it with calomel a distinct deposit of metallic mercury is easily obtained.

EFFECTS OF WARM ABDOMINAL COMPRESSES.

DR. T. T. LEVINSON, who has been engaged in investigating the effects of warm abdominal compresses under the direction of Professor Manassein of St. Petersburg, finds that they distinctly promote nitrogenous change in the body, the quantity of urine passed and the amount of uric acid excreted being also increased, as well as the assimilation of the nitrogenous elements by the body.

THE COMPULSORY DETENTION IN WORKHOUSES OF PATIENTS WITH VENEREAL DISEASES.

IN our issue of last week there appeared, on p. 954, a letter from Mr. A. F. Mickle, M.B., advocating the necessity of acquiring powers to detain until well all patients suffering from venereal diseases in our Poor Law and other institutions. A correspondent calls our attention to the fact that, so far as workhouses are concerned, such power already exists as to syphilitic diseases, and presumably also to gonorrhœa. It is the Act 30 and 31 Vict., the Poor-law Amendment Act, c. 106, s. 22, which provides for the compulsory detention in workhouses of persons afflicted with contagious disease; and the Royal Commissioners appointed in 1870 to inquire into the Contagious Diseases Acts were advised that this includes syphilis. The clause is very complete and stringent, conferring ample powers on the guardians, the master, and the medical officer of each workhouse to detain such patients until the medical officer has certified as to their freedom from disease. If from any reason this power has been permitted to fall into abeyance, or has been exercised with laxity, it is of the greatest importance that it should in future be rigidly enforced.

THE ELECTION AT ST. THOMAS'S.

WE understand that Walter Baugh Hadden, M.D. Lond., M.R.C.P., and Theodore Dyke Acland, M.D. Oxon., M.R.C.P., have been elected assistant-physicians to St. Thomas's Hospital.

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—Dr. F. Renk of Munich has been appointed to take charge of the Imperial Sanitary Bureau, in succession to Professor Wolffhügel, who has gone to Göttingen.

Halle.—Dr. Zopf, *Privat Docent* in Botany, has been granted the position of an Extraordinary Professor.

Königsberg.—Dr. Branco of Berlin has been offered the Professorship of Mineralogy and Geology.

Montpelier.—The Faculty of Medicine has recommended M. Kiener, principal medical officer of the Military Hospital, for the Professorship of Pathological Anatomy and Histology, vacant by the death of M. Estor. In proposing M. Kiener, who is not *agrégé*, the Faculty has taken a new departure, it being the rule hitherto that only those who had the title of *agrégé* or assistant professor could hope to obtain the higher post.

DR. J. A. MARSTON, Deputy Surgeon-General, head of the Sanitary Branch of the Army Medical Department, is, in consequence of the continued indisposition of Dr. De Chaumont, at present discharging the duties attaching to the chair of Military Hygiene at the Medical School at Netley. We regret that we are unable to report any great improvement in the condition of Dr. De Chaumont.

ON the 9th inst., Princess Beatrice opened as a place of recreation the disused burial-ground adjoining the Church of Holy Trinity, Tredegar-square, Bow-road. The whole cost of laying out the ground, which is about an acre in extent, has been defrayed by the Metropolitan Public Gardens Association.

MR. CONDER'S sewage process is said to be now at work successfully at Chichester Barracks. A pamphlet has been forwarded to us in which the results obtained by its means are represented as remarkably satisfactory, but no sufficient details are given as to the *modus operandi*. We are therefore unable to express an opinion on its merits.

ON the 21st ult. the death occurred of Deputy Inspector-General J. G. T. Forbes, R.N., at Pitlochrie, N.B., after a lingering illness, borne with exemplary resignation and fortitude. The deceased, who had some time ago retired from the service, obtained the licence of the Royal College of Surgeons of Edinburgh in 1848.

AS announced in our advertising columns the annual general meeting of the governors of the Royal Medical Benevolent College will be held on the 26th inst., when, in addition to other business, several important alterations in the bye-laws of the College will be proposed by the Council.

WE are requested by the Director-General of the Army Medical Department to state that no examinations for commissions in the Medical Staff of the Army will be held in August next.

WE understand that the new and commodious Physiological Laboratories just completed at St. George's Hospital Medical School will be opened on Wednesday, May 18th, at 3 P.M. An address will be delivered on the occasion by Mr. George D. Pollock, consulting surgeon to the hospital.

THE President of the Royal Medical and Chirurgical Society announces that the name of Dr. S. J. Gee has been nominated by the Council as honorary librarian, to fill the vacancy caused by the much-regretted death of Dr. Wilson Fox.

MR. BLAND SUTTON and Dr. Dudley Buxton have been elected honorary members of the Odontological Society, in acknowledgment of the distinguished services they have rendered the science of dental surgery.

THE proposal to erect an Infectious Disease Hospital at Horsham is meeting with much opposition by the residents of the town, and a memorial is to be presented to the Local Government Board against the scheme.

MR. VICTOR HORSLEY, F.R.S., will give at the Royal Institution, on Tuesday, May 17th, the first of a course of three lectures on the Modern Physiology of the Brain and its relation to the Mind.

DR. GRAILY HEWITT has been appointed a Vice-President of the Gynæcological Section at the forthcoming International Medical Congress at Washington.

LORD RAYLEIGH, F.R.S., has been elected Professor, and Dr. John Tyndall, F.R.S., Honorary Professor, of Natural Philosophy at the Royal Institution of Great Britain.

MEETING OF THE GENERAL MEDICAL COUNCIL.

(*Continued from page 989.*)

THURSDAY, MAY 12TH.

MR. MARSHALL, PRESIDENT, IN THE CHAIR.

SIR WM. TURNER moved that the following address to Sir Henry W. Acland be signed and approved by the Council:—

To Sir Henry Wentworth Acland, K.C.B.

We, the members of the General Medical Council, desire to express to you on your retirement from the presidential chair, to which you were elected in July, 1874, our warmest thanks for the invaluable services which you have rendered, as President, during the past thirteen years. We would record that you have with singular devotedness applied yourself to the service of the Council, and that you have conducted its business with a dignity, courtesy, and impartiality which have secured for you the confidence, regard, and affection of its members. We would also recall the fact that you have been a member of the Council since its establishment by Parliament in 1858, and that your action during that long period has had for its object the improvement of medical education, the elevation of the status of the medical profession, and the establishment and maintenance of harmonious co-operation between the Council and the several medical authorities of the United Kingdom. We would also express the hope that you may, in your retirement, have the enjoyment of your well-earned leisure.

Dr. QUAIN seconded the motion, and suggested that Sir H. W. Acland be requested to dine with the Council next week.

The motion was unanimously agreed to.

The debate on Mr. Carter's motion was resumed.

Dr. HUMPHRY said the question was not one of sympathy with the Society of Apothecaries, but a question of carrying out the Medical Act, the great object of which was to enable the different medical bodies to combine in their examinations. A discretion was given to the Medical Council; and it was not only to "think fit" on the subject, but was bound to think fitly, and if it did not it was subject to a *mandamus* from a higher power. It would be absurd for the Medical Council to tell the Privy Council that it would be "injurious to the interest of the public" to adopt the course proposed without stating its reasons. None of the reasons which had been given would have any weight with a sensible body like the Privy Council. He had been astonished that they should have been brought forward by two sensible Scotchmen. One reason assigned was that competition would be injurious; but Parliament had provided for that competition, and the Council could not put forward such an objection. As to the Apothecaries' Society being a trading Society, that fact was known by Parliament, and there was no reason why a trading Society should not give a good examination. It had been stated that the Society had degraded the profession. It had, however, commenced the examination of students, and the Medical Council had extended that examination. As to dispensing medicines, he knew many high-class practitioners who had done the same thing without any degradation whatever. The assertion that the Society of Apothecaries had been the cause of homœopathy was absurd, and it was impossible to assign such a ground of objection to the Society. There was only one proper ground of refusal, and that was that a proper examination could not be given with the aid of the Medical Council; and the question was whether such a statement could be borne out. It was admitted that the Society gave a good examination in its own department; and the Council had power to appoint any number of examiners whose duty it would be to maintain the required standard of examination. Could the Medical Council go to the Privy Council and state that it could not make the examination an adequate one? If it could not, it had no valid objection to offer to the proposed combination.

Mr. COLLINS said he understood the objection which many gentlemen might have to a mixture of trade and profession; but the Council was sitting as a judicial body, and ought to act in that capacity, not simply carrying out the private opinions of its members. One of the privileges conferred by Parliament upon medical practitioners was that they might charge for the medicaments they supplied. Physicians only were prohibited from charging for medicines. As a judicial body the Council was bound to carry out the law. When the Apothecaries' Society's Act was passed, Parliament knew that the members of the Society kept open shop, and yet it gave the Society power to examine in medicine, thus mixing trade and profession. As to the interpretation of the words "if they think fit," if there was any doubt on the subject, the Society of Apothecaries was entitled to the benefit of that doubt. It was quite possible that the young man who sold to Dr. Struthers the 3*s.* 2*d.* worth of medicine at Blackfriars had the diploma of the University of Aberdeen in his pocket. (Laughter.) If the licentiates of the Apothecaries' Society were inferior men, the fault lay chiefly with the teachers who gave them their certificates. The idea of homœopathy and hydropathy having been encouraged by the Society of Apothecaries could not be substantiated, other causes having contributed to the result.

Sir WM. GULL protested against the notion that the Council had no discretion in the matter. He maintained that the Government would not interfere with the discretion of a public body so long as it was exercised *bond fide*. His duty as a member of the Council was to consider whether it was desirable to have a Society of Apothecaries at all. He contended that it was not, and that its existence was contrary to the interests of medicine. People did not get well by drugs. When the Prince of Wales was ill of typhoid fever how many doses of medicine did he take? Not four. The question was whether the profession should be set free from the trammels of the past. Medicine was once given even for fractures. It was the powers of nature that effected a cure of disease, and the duty of the medical man was not to give drugs, but to see that nature's powers were not interfered with. He had nothing to say against general practitioners, whom he respected and admired; but he wanted to raise the general tone of the profession, and that object would never be accomplished by maintaining the Society of Apothecaries. There was no reason for appointing examiners in surgery for the Society, seeing that the College of Surgeons was willing to undertake the examinations. Whatever might be said of general practitioners, there was a universal practitioner better than all of them—a warm bed when you are sick.

Dr. QUAIN protested against being considered a pretender in professing to cure disease by administering remedies. He had seen drugs of use in thousands of cases, and where they

failed, the fault was not with the drugs, but with the diagnosis.

Mr. MACNAMARA was not going to discuss the merits or demerits of drugs, but he believed it was the general feeling that the request of the Society of Apothecaries should not be granted. He differed from Mr. Simon as to the compulsory signification of the words "if they think fit." Legal opinions on the subject were of little value unless they were delivered from the bench. He maintained that the Act of Parliament had actually disfranchised the Society of Apothecaries. Its qualifications were stated not to be registrable, and it was for the Medical Council to decide whether they should be made registrable. There was no adequate ground for the adoption of that course, and he hoped that the application for the appointment of additional examiners would not be granted. It would, he believed, be to the advantage of the profession and the public to prevent the appointment of such examiners, which would, in his opinion, be a retrograde step.

Dr. GLOVER protested against Sir Wm. Gull's statement as to the uselessness of drugs, and said that his speech was rather directed against physicians and the whole medical profession than against drugs. It had been said that if the virtue of cinchona had been discovered a little earlier the life of Oliver Cromwell might have been prolonged for some years. The action of the two Colleges was, in his view, an additional reason for granting the prayer of the Society of Apothecaries. He had been for many years one of a number of persons who had tried to diminish the number of licensing corporations by the action of the Legislature. The Legislature, however, had declined to reduce the number in the way desired; and that being so, he now declined to be the executioner of an old corporation that had done its work well for seventy years. If it was disestablished, it should be by the same Parliament that had called it into existence. His experience agreed with that of Mr. Wheelhouse, that low professional conduct was rarely exhibited by licentiates of the Society of Apothecaries, who had always been distinguished for their honourable behaviour as men and their competency as practitioners.

Dr. CHAMBERS supported the motion, and contended that the Society of Apothecaries ought to be continued because, among other reasons, it was the only English body to which women could go for diplomas to practise; the curriculum of the London University being unsuitable.

Dr. MCVAIL supported the motion for the appointment of examiners. He said that in that case the Council would become the examining body, and they could surely ensure that the examinations were sufficient. It was utterly absurd, therefore, to say that a number of inferior practitioners would be appointed. The Act of Parliament gave the Council no option whatever. It had been assumed that it was an Act which extinguished the Apothecaries' Society, and that the Council was appointed the executioner, but from the beginning to the end of the Act there was not a single word to support that notion. It might have been that the College of Surgeons found itself unable to give the full qualification, but was it to be said that therefore that College was to be extinguished? The past history of the Apothecaries' Society was very honourable, take it all in all. Undoubtedly here and there in the reports of visitation of examinations there might be found observations not of the most complimentary character on some part of the Apothecaries' Company's examinations, but that did not apply to that Company alone. He was sure that anyone acquainted with the medical practitioners of England would admit that the licentiates of the Apothecaries' Company had been as worthy members of the profession as those of any other body in the kingdom.

Dr. KIDD asked whether the Council was prepared to accept the responsibility of becoming an examining body. So far as he was concerned, he was not prepared to accept the responsibility. They were asked to set up an examining body under their own control, and that body was to be a competing body with the Colleges of Physicians and Surgeons. That was a position that was altogether contrary to the public welfare. If the amendment were carried, the effect would be simply to refer the matter to the Privy Council; and if the Privy Council decided that examiners must be appointed, it would take away the responsibility from the Medical Council.

Dr. HEBON WATSON said that no sufficient reason had been advanced for refusing the crave of the Apothecaries' Society. He hoped it would not enter into the imagination of any of the members of Council, nor of the profession generally, that they were really establishing a new institute, setting up a new examination, and taking steps which should enable a new university to be created at Blackfriars; but he did most sincerely hope that the Council would grant the crave of the Apothecaries' Society, would give them what they required in the way of an additional examiner, and so enable this most useful, valuable, and ancient body to be perpetuated.

Dr. AQUILLA SMITH supported the amendment.

Mr. BRUDENELL CARTER, speaking in reply upon the question of statutory obligation, said he thought there was a moral obligation upon gentlemen who accepted a certain definite position, such as membership of that Council, to fulfil the statutory duty which that position imposed upon them, or to retire from their position. He referred to what took place in April last year when he formed one of a deputation from the Society of Apothecaries to Sir Lyon Playfair, the object being to point out that they did not think they were sufficiently protected by the words "think fit," which then carried no right of appeal. Sir Lyon Playfair, in his reply, stated that the clause was put in specially for the protection of the Apothecaries' Societies, because it was not thought desirable that those Societies should be extinguished. Stress had been laid upon the changes made in the statements in the medical journals with reference to the Society of Apothecaries. That change was only an indication that the Society had improved its position in the estimation of the profession.

The amendment was then put, as moved by Dr. Struthers, and was rejected by 19 votes against 9. One member of the Council did not vote, and two were absent.

The debate was then adjourned.

ABSTRACT OF

LECTURES ON MALARIAL FEVERS.[1]

BY W. NORTH, B.A., F.C.S.,

LATE RESEARCH SCHOLAR OF THE GROCERS' COMPANY.

LECTURE III.

RECENT RESEARCHES INTO THEIR ETIOLOGY AND PATHOLOGY.—THE POSSIBILITY OF PREVENTION IN THE INDIVIDUAL AND OF IMPROVING THE CONDITION OF MALARIOUS COUNTRIES.

AFTER considering the general and local distribution of malaria and the conditions under which it exists, the next question which arises is, How far may the symptoms which characterise the disease be regarded as the natural consequence of exposure of the individual to these conditions? Or is it necessary to go further, and seek their origin in some poison whose growth and development are especially fostered by these conditions. A simple uncomplicated attack of malarial fever, as is well known, begins with a "cold stage," often accompanied, but not necessarily, with more or less violent rigors; then follows a "hot stage," or condition of fever, which terminates in profuse sweating—the "sweating stage." It is possible for a patient to have such a train of symptoms, and to recover and have no return of them if he be promptly treated; but in most cases they repeat themselves at varying but exceedingly regular intervals, constituting what is known as quotidian, tertian, and quartan ague. Further, it is possible for an individual, after an interval of immunity varying from days to years, to have a recurrence of the symptoms, though not, as a rule, with the same period of intermission, and in old cases the regular intermission disappears. Further, these symptoms may, and often do, reappear under conditions which render it impossible that there should have been a fresh access of poison; and an individual who has once suffered appears to be more or less liable to returns of the disease as long as he lives; and should he be attacked by any febrile disorder whatsoever, a distinct intermission will generally be found added, as it were, to the ordinary symptoms of his disease, and this intermission will disappear under the treatment usually prescribed for ague—viz., the use of quinine, arsenic, and the like, in addition to any drugs proper to the treatment of the particular disorder from which he is suffering. If

[1] Delivered at the London Institution, April 28th, 1887.

antiperiodics be not administered, the intermission will disappear with the disease, and may not manifest itself again until the patient suffers from some other disease. Again, in a person who has once had ague, an attack may be provoked by a number of widely different circumstances—e.g., fright, surgical injury, nervous and physical exhaustion, sudden chill, &c.; and not only will these circumstances bring about an attack, but some of them are equally efficacious in cutting one short which has just begun. In the very grave forms of the disease known as "pernicious" the fever is often continuous and frequently fatal. These cases—in the Roman Campagna, at all events—are not very common, and, in the author's opinion, are rarely, if ever, "first" attacks; and though a first attack may be severe, there is a very large amount of evidence to show that intermittent fever, except perhaps in the case of persons of very feeble constitution, cannot be acquired by a few hours' exposure in a malarious locality, and that there is some sort of connexion between the duration of the exposure and the severity of the attack. This varies enormously in different individuals, and though it is exceedingly doubtful whether such a thing as absolute immunity exists, there are certainly such differences in susceptibility as to render it at all events conceivable.

The pathological changes in the organs and tissues which accompany the disease are somewhat obscure. In grave cases there is always a large amount of melanæmia, which manifests itself in the liver, spleen, and kidneys, and especially in the cortical substance of the brain, where the capillaries are found to be loaded with minute black granules. The splenic trouble which is characteristic of most cases would seem to point to some special interference with or alterations in the functions of that organ; and it is not surprising, therefore, to find in the blood evidence of profound changes in the red corpuscles and their pigment, and the production of certain amœba-like bodies, which, under the name of Plasmodium malariæ, have been described by Drs. Celli and Marchiafava as the cause of the disease, the transmissibility of which they claim to have proved by the intravenous injection of the blood of a patient suffering from intermittent fever into an individual who was said never to have had it in his life. It is needless to remark that the experiments are open to very grave objections—so grave as to deprive the result of almost all its significance. Dr. W. Osler has given a very full account of these so-called "hæmatozoa of malaria" in the *British Medical Journal* of March 12th. Here it will suffice to state that all attempts to discover an organism capable of producing the disease in the air, soil, or water of malarious localities have signally failed, though a number of organisms have from time to time been announced as such; nor have the attempts to cultivate the blood of patients produced any better results. The experiments of Dr. Silvestrini on the subcutaneous injection of dew, water, and the water in which soil from exceedingly malarious localities had been washed, are interesting. Sixty-three experiments of this kind yielded absolutely negative results, and, despite the large amount of work which has been done in the search for a pathogenic organism, a confirmation of the existence of the peculiar changes in the blood above referred to represents the progress made; and proof that the disease has its origin in such an organism, or that the bodies discovered in the blood come from without and are not the outcome of changes in the corpuscles themselves, is still wanting.

There is one other theory as to the cause of the disease which claims serious attention. The so-called "chill theory," according to which the thermotaxic nervous system, in endeavouring to adapt itself to the needs of the body exposed to the great and violent changes of temperature said to occur in malarious countries, breaks down and becomes disorganised; that is to say, malarial fever is essentially a disease of the nervous system caused by exposure to climatic conditions. "Chill" is probably a wrong term to use; for the break-down is more likely to be occasioned by exposure to excessive heat than to excessive cold, and, considering that we know practically nothing of what occurs in the body when exposed to a temperature above its own, the theory cannot be summarily rejected. It depends, however, on the supposed existence of these violent changes, which have not apparently been made the subject of accurate observation by those who have urged this explanation of the disease.

From a large number of experiments made by the author in exceedingly unhealthy sites near Rome in the summer of 1885, it would appear—1. That the daily range of temperature in these places is very great. 2. That the changes are sudden and violent. 3. That the characters of the curves indicating temperature and tension of aqueous vapour present in the atmosphere present most marked differences in localities barely 200 metres apart horizontally, and similarly marked differences are found in the records of instruments placed at different vertical heights above the soil. 4. The connexion between these variations of temperature and vapour tension and the malarious character of the localities in which they were observed is such as to lead to the conclusion that, if not in themselves the cause of the disease, they must directly affect any organism to which such a power could be attributed; and it would seem fair to conclude that if these climatic conditions could be modified, the pathogenic organism which may be supposed to thrive under them would disappear, and the localities in question become healthy. Either as a sufficient cause in themselves, or as controlling the growth of organisms, these phenomena undoubtedly have a most intimate connexion with the disease, and it becomes possible for us to understand the real value of the precautions universally deemed advisable in malarious countries: fire, food, and clothing; the avoidance of low, damp ground for camps; the building of huts on poles, residence in the top floors of houses, and the like. It is difficult to realise from mere figures what these climatic phenomena really are, but one night spent in the Campagna in August would suffice to convince the most sceptical of the necessity of protecting the body against them, and to realise the wretched condition of the great bulk of those who are most exposed: ill-fed and worse clothed, they have to resist all day long a temperature often 104° F. in the shade, and to sleep in a damp wretched hovel, in an atmosphere saturated with moisture and a temperature which just before dawn may have fallen to 38° or even 36°, to rise in three or four hours to 100° or even more. A healthy person exposed for some time in places where these conditions obtain, runs grave risk of acquiring an intermittent fever, and one who has already had the disease will readily relapse under them, and may be attacked by one of the very grave forms. In both cases the result may be attributed to access of poison; but the same explanation will hardly hold in cases of relapse from exposure to heat and cold in a non-malarious country, and after years of immunity. Either the organism, if such there be, has a wonderful power of lying dormant and of being recalled to activity by exceedingly diverse conditions, or the thermotaxic nervous system, having once been thrown out of gear, readily breaks down again under strain. The recurrence of attacks would seem to be, as it were, a vice rendered the more easy by practice; consequently the anticipation of them by drugs or other remedies is of great importance in treatment. Chronic cases in which all regular periodicity has been lost are notoriously obstinate, and difficult, if not impossible, of cure. Much may be done, however, in all cases by avoiding exposure to the above-mentioned extreme variations of temperature and the maintenance of "tone" in the nervous system.

The question of the cure of a malarious country resolves itself into the removal of the causes of these climatic extremes, and this in turn into perfect control over subsoil water. Drainage and the planting of suitable trees are the well-recognised methods of effecting this; and the care bestowed by the Romans on their woods, and the elaborate system of drainage which they constructed in the hills round Rome, would seem to indicate that they, at all events, realised the vast importance of these things. It is very evident from the facts that malarial fevers have a most intimate relation to the soil and to local climate. In the case of the Roman Campagna it has been possible to some extent to trace the spread and increase of the disease *pari passu* with the depopulation and neglect of the soil, and whether malaria be due to the direct influence of climatic conditions on the individual or to a pathogenic organism, there can be no reasonable doubt that these peculiar local conditions form an important factor in the problem of its causation—and not only of malaria, but probably of other diseases. The peculiar form of enteritis known as typho-malaria exhibits a similar relationship to the soil, and in England infantile diarrhœa shows a connexion hardly less striking. Our knowledge of the relations of soil and climate to disease is scanty and very general, and a careful study of these local conditions would probably tend to throw great light on much regarding them which is at present obscure or almost inexplicable.

UNIVERSITY OF LONDON: ANNUAL MEETING OF CONVOCATION.

THE annual meeting of Convocation of the University of London was held on Tuesday last, the 10th inst, Dr. Wood, the Chairman of Convocation, presiding. Mr. Henry E. Allen, LL.B., B.A., was re-elected Clerk of Convocation. The report of the Annual Committee was received on the motion of Mr. Howse. The report contained the reply of Her Majesty acceding to the petition of the University to grant it the privilege of addressing Her Majesty upon the Throne "upon the occasion of the completion of the fiftieth year of Her Majesty's reign, and upon all future occasions in like manner as is allowed to the Universities of Oxford and Cambridge." The Committee also reported that revised regulations for matriculation had been framed by the Senate, embodying many of the recommendations of Convocation. The steps taken with regard to the reconstitution of the University were stated and the report of the Special Committee of the Senate on the subject was appended. The Senate had approved of the adoption of a motto for the University in accordance with a resolution of Convocation, and had referred the consideration of its selection to the Committee on Examinations in Arts, Science, and Laws. The Annual Committee desired that the subject of the expenses of Convocation be again referred to them, and with respect to a resolution upon the regulations for the doctors' degrees, were not prepared to make any recommendation. The report mentioned with regret the death of Mr. William Shaen, and stated that the vacancy in the Senate occasioned by the death of Mr. George Busk had been filled by the Crown appointment of the Right Hon. A. J. Balfour, M.P.

On the motion of Dr. Weymouth, seconded by Mr. Spratling, B.Sc., it was resolved that the resolution of January 17th, 1887, in regard to the annual expenses of Convocation, be again referred to the Annual Committee for its further consideration.

Dr. Napier moved, and Mr. Mears seconded, the reception of the interim report of the Special Committee for the consideration of the regulations for the examinations for the degrees in Law.

Dr. S. P. Thompson moved, and Dr. Napier seconded, a resolution, which was to the effect that in the voting for graduates nominated by Convocation to serve on the Senate the vote of each member should be restricted to one candidate. It should be remembered that Convocation is required to submit three names to the Crown, and that it has been the custom for the choice to fall on the candidate who has received the largest number of votes. It was urged that under the present system the candidate thus chosen might not represent the actual majority. After much discussion, in which the resolution was opposed by Mr. Macdowall, Mr. Tyler, Mr. Osler (who believed the proposed change was *ultra vires*), Sir A. K. Rollitt, and others, and supported by Dr. Weymouth, Dr. Nesbitt, Dr. Collins, and others, the resolution was carried. A further resolution, to make the nominations in rotation from amongst the Faculties of Arts, Science, Laws, and Medicine, was moved by Dr. Thompson, and seconded by Sir A. K. Rollitt. At present the selection is made alternately from the combined Faculties of Arts and Laws and those of Science and Medicine; and it was urged that this gave a disproportionate representation on the Senate to graduates in the Faculties of Arts and Medicine. Sir Julian Goldsmid opposed the resolution, and in the course of his speech referred to the "inchoate scheme" for the reconstitution of the University now before the Senate, expressing his belief that it would be long before it emerged as a real fact. Several graduates spoke, and eventually the resolution was lost.

On the motion of Dr. O'Reilly, seconded by Mr. Enright, the meeting reaffirmed previous resolutions in favour of the establishment of London local examinations by the University; but a further resolution to initiate the undertaking by means of a voluntary Permanent Committee, or Syndicate, was passed over.

Mr. E. S. Weymouth, M.A., moved, and Mr. Nesbitt, M.A., seconded, a resolution that Convocation cannot assent to any proposal for the establishment of Faculties in which it will not obtain substantial representation.

The meeting adjourned without coming to a vote on this resolution.

The Annual Committee was appointed, the following members being elected:—

Faculties of Medicine and Science.—M. Baines, M.D.; A. W. Bennett, M.A., B.Sc.; W. L. Carpenter, B.A., B.Sc.; W. C. Coupland, M.A., B.Sc.; J. Curnow, M.D.; G. Eastes, M.B.; W. H. Holman, M.B.; H. G. Howse, M.S., M.B.; Sir P. Magnus, B.A., B.Sc.; H. Morris, M.A., M.B.; R. Neale, M.D.; M. F. O'Reilly, D.Sc.; W. J. Spratling, B.Sc.; F. Taylor, M.D.; S. P. Thompson, D.Sc., B.A.; W. C. Unwin, B.Sc.

Faculties of Arts and Laws.—J. B. Benson, LL.D., B.A.; J. W. Bone, B.A.; M. P. Christie, B.A.; J. Hennell, B.A.; R. W. Hinton, B.A.; B. Kisch, M.A., B.Sc.; W. G. Lemon, LL.B., B.A.; A. McDowall, B.A., B.Sc.; S. P. Moore, LL.B., B.A., B.Sc.; T. B. Napier, LL.D.; H. A. Nesbitt, M.A.; W. Paice, M.A.; G. A. Smith, M.A.; E. S. Weymouth, M.A.; R. F. Weymouth, D.Lit., M.A.; B. Whitehead, B.A.

WILLS OF MEDICAL MEN.

THE will and codicil of James Drummond, M.D., formerly of Glasgow, afterwards of Richmond, and late of 5, Great Cumberland-place, who died on Feb. 28th last, were proved on the 16th ult. by George Skene Keith, M.D., the acting executor, the value of the personal estate exceeding £52,000. The testator gives his furniture and effects to his spouse Mrs. Jemima Johnston or Drummond; and there are bequests in favour of his mother and sister. The residue of his real and personal estate he leaves upon trust for his wife for life or until she shall marry again, and then for his children.

The will of David Scott, M.D., late of 52, Camden-square, Camden-town, who died on March 7th last, was proved on the 18th ult. by Mrs. Emma Louisa Scott, the widow, James Hamilton Wylie and Alfred Charles Preston, the executors, the value of the personal estate amounting to over £31,000. The testator gives all his household furniture and effects and £1000 to his wife; £150 each to his executors, James Hamilton Wylie and Alfred Charles Preston, and £1500 upon trust for his son David Forest. The residue of his real and personal estate he leaves upon trust for his wife for life, and after her death to his said son absolutely.

The will of Robert Elliot, M.D., late of 93, Denmark-hill, Camberwell, who died on February 15th last, was proved on the 4th ult. by Mr. Norman Bruce Elliot, M.R.C.S., the son, and Major-General James Mansfield Nuttall, C.B., the executors, the value of the personal estate amounting to over £12,000. The testator bequeaths £25 to his executor, Major-General J. M. Nuttall, to purchase a walking-stick or other momento of him. The residue of his real and personal estate he gives to his son Norman Bruce and to his three daughters Janet, Caroline, and Charlotte Alice in equal shares.

The will of Robert Bryce Gilland, M.D., formerly of the Berks County Asylum, but late of Fayremeade, Sevenoaks, who died on March 8th last, was proved on the 7th ult. by John Bryce Gilland, William Taylor (physician), and William Taylor (farmer), the executors, the value of the personal estate being sworn over £6000. The testator after leaving sundry legacies to persons connected with the Berks County Asylum, leaves the residue of his real and personal estate to his sister Ann Wilding Taylor absolutely.

The will of Charles Hutton, M.D., late of 26, Lowndes-street, Belgrave-square, who died on March 27th last, was proved on the 19th ult. by Mrs. Henrietta Sophia Elizabeth Hutton, the widow, and the Rev. Edward Seymour, the executors. The testator gives all his real and personal estate to his wife absolutely.

The Scotch Confirmation, under seal of the commissariot of Lanarkshire, of the deed of settlement, with two codicils, of Ebenezer Watson, M.D., of Glasgow, who died on Dec. 13th last, granted to Mrs. Mary Ferrier Young or Watson, the widow, Mr. James Ebenezer Watson, the son, and Mr. John Ebenezer Watson and Mr. Thomas Watson, the cousins, the executors nominate, was resealed in London on the 2nd ult., the value of the personal estate in England and Scotland amounting to over £12,000.

The following legacies have recently been left to hospitals and other medical institutions:—Miss Harriet Gurney Fordham, late of Melbourn, Bury, Cambridgeshire, £500 to Addenbrooke's Hospital, Cambridge; £300 to the Hunstanton Convalescent Home; £200 each to the Royston Cottage Hospital, and the Hospital for Children with Hip Diseases,

Sevenoaks.—Mr. James Chapman, late of Warminster, Wilts, £250 each to the Warminster Cottage Hospital and the Salisbury Infirmary.—Mr. John Clark, formerly of 34, Marischal-street, Aberdeen, but late of 19, Royal York-crescent, Clifton, Bristol, £200 each to the Royal Infirmary of Aberdeen, and the Hospital for Persons labouring under Incurable Diseases, Aberdeen.—The Right Hon. Henry Edwyn Chandos, Earl of Chesterfield, J.P., D.L., late of Holme Lacy, Herefordshire, £100 to the Hereford Infirmary.—Mrs. Eliza Maria Beaumont, late of Kenwood-park, Sheffield, £100 each to the Sheffield General Infirmary and the Sheffield Public Hospital and Dispensary.—Mr. Stephen Ponder Kennard, J.P., D.L., late of 17, Kensington-palace-gardens, £300 to the West London Hospital, Hammersmith.—Mr. Benjamin Lancaster, late of Sunnyside, Bournemouth, £1000 to St. George's Hospital, Hyde-park-corner, £500 each to the Middlesex Hospital, King's College Hospital, the Consumption Hospital, Brompton, and the Home for Incurables, Putney.—Mr. Moses Lea, formerly of the Stock Exchange, and of 27, Clarendon-gardens, Maida-vale, but late of 58, Maryland-road, St. Peter's Park, £1000 to the London Hospital, Whitechapel, £500 each to the Jews' Hospital, Lower Norwood, the Royal Ophthalmic Infirmary, Moorfields, the Home for Incurables, Putney, and the Cancer Hospital, Brompton. The residue of his property is to be divided between the London Hospital, Whitechapel, and the Jews' Orphan Asylum, Tender Ground.—Mr. William Westley, late of 24, Regent-street, £100 each to the General Hospital and the Birmingham Dispensary; £200 to the Consumption Hospital, West Brompton.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5899 births and 3704 deaths were registered during the week ending May 7th. The annual rate of mortality in these towns, which had been 21·6 and 20·6 per 1000 in the preceding two weeks, rose again last week to 20·9. During the first five weeks of the current quarter the death-rate in these towns averaged 20·9 per 1000, and was 2·1 below the mean rate in the corresponding periods of the ten years 1877-86. The lowest rates in these towns last week were 16·0 in Birkenhead, 16·7 in Bolton, 17·2 in Nottingham, and 17·5 in Hull. The rates in the other towns ranged upwards to 27·2 in Oldham, 27·8 in Huddersfield, 31·0 in Manchester, and 34·2 in Preston. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 558 and 529 in the preceding two weeks, rose again last week to 548; they included 249 from measles, 160 from whooping-cough, 45 from scarlet fever, 39 from diarrhœa, 32 from diphtheria, 22 from "fever" (principally enteric), and only 1 from small-pox. The lowest death-rates from these zymotic diseases were recorded last week in Birkenhead and Wolverhampton; and the highest rates in Liverpool, Manchester, Salford, and Norwich. The greatest mortality from measles occurred in Liverpool, Manchester, Salford, and Norwich; and from whooping-cough in Bradford, Liverpool, Oldham, and Huddersfield. The 32 deaths from diphtheria in the twenty-eight towns included 20 in London and 2 in Liverpool. Small-pox caused 1 death in Cardiff, but not one in Greater London or in any of the twenty-six other large provincial towns. Only 5 cases of small-pox were under treatment on Saturday last in the metropolitan hospitals receiving cases of this disease; one new case had been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 337 and 338 in the preceding two weeks, further rose last week to 348, but were 9 below the corrected average. The causes of 81, or 2·1 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Nottingham, Portsmouth, Brighton, and Wolverhampton. The largest proportions of uncertified deaths were registered in Sheffield, Halifax, Cardiff, and Newcastle-upon-Tyne.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 22·0 and 22·5 per 1000 in the preceding two weeks, declined to 21·2 in the week ending May 7th; this rate exceeded, however, by 0·3 the mean rate in the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 9·4 in Leith and 13·0 in Perth, to 23·9 in Aberdeen and 26·0 in Greenock. The 529 deaths in the eight towns last week showed a decline of 34 from the number in the previous week, and included 31 which were referred to whooping-cough, 25 to measles, 11 to diarrhœa, 2 to scarlet fever, 2 to diphtheria, 1 to "fever" (typhus, enteric, or simple), and not one to small-pox; in all, 72 deaths resulted from these principal zymotic diseases, against 95 and 89 in the preceding two weeks. These 72 deaths were equal to an annual rate of 2·9 per 1000, which was 0·2 below the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 36 in each of the preceding three weeks, declined last week to 31, of which 13 occurred in Glasgow, 8 in Dundee, and 3 in Edinburgh, in Aberdeen, and in Greenock. The 25 deaths from measles showed a further decline of 2 from the numbers in recent weeks, and included 12 in Aberdeen, 9 in Glasgow, and 3 in Greenock. The 11 deaths attributed to diarrhœa showed an increase of 3 upon the low number in the previous week, but were one below the number in the corresponding week of last year. The fatal cases of scarlet fever further fell last week to 2, both of which occurred in Edinburgh. The 2 deaths from diphtheria, also showing a further decline from recent weekly numbers, were returned in Glasgow; and the single death from "fever," occurred in Edinburgh. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 126, 124, and 111 in the preceding three weeks, further declined last week to 106, and were 2 below the number in the corresponding week of last year. The causes of 57, or nearly 11 per cent., of the deaths registered in the eight towns during the week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 31·3 per 1000 in each of the preceding two weeks, rose to 36·6 in the week ending May 7th, and exceeded the rate in any previous week of this year. During the first five weeks of the current quarter the death-rate in the city averaged 32·7 per 1000, the mean rate during the same period being but 18·6 in London and 19·4 in Edinburgh. The 248 deaths in Dublin last week showed an increase of 36 upon the number returned in each of the previous two weeks; they included 6 which were referred to measles, 5 to "fever" (typhus, enteric, or simple), 5 to whooping-cough, 3 to scarlet fever, and not one to small-pox, diphtheria, or diarrhœa. Thus 19 deaths resulted from these principal zymotic diseases, against 19 and 24 in the preceding two weeks; they were equal to an annual rate of 2·8 per 1000, the rates from the same diseases being 2·7 in London and 1·8 in Edinburgh. The fatal cases of measles, which had been 6 and 11 in the preceding two weeks, declined again last week to 6; while the deaths referred to "fever," whooping-cough, and scarlet fever showed an increase upon recent weekly numbers. The deaths of infants were within one of the number in the previous week, while those of elderly persons showed a considerable increase. Seven inquest cases and 7 deaths from violence were registered; and 93, or considerably more than a third, of the deaths occurred in public institutions. The causes of 31, or more than 12 per cent., of the deaths registered during the week were not certified.

ROYAL INSTITUTION OF GREAT BRITAIN.—The annual meeting of this institution was held on the 2nd inst., Sir William Bowman, Bart., LL.D., F.R.S., manager and vice-president, in the chair. The annual report of the Committee of Visitors for the year 1886, testifying to the continued prosperity and efficient management of the institution, was read and adopted. The real and funded property now amounts to above £83,000, entirely derived from the contributions and donations of the members. Forty-eight new members had paid their admission fees, and sixty-three lectures and nineteen evening discourses had been delivered. The books and pamphlets presented in 1886 amounted to about 288 volumes, making, with 443 volumes (including periodicals bound) purchased by the managers, a total of 731 volumes added to the library in the year.

Correspondence.

"Audi alteram partem."

THE RELATIVE RANK QUESTION.

To the Editors of THE LANCET.

SIRS,—I have no sympathy with those who have again roused a spirit of opposition in a department which craved only one thing—viz., to be let alone, and not subjected to constant changes, the reason for which they could not be expected to understand, but the effect of which their previous experience gave them every reason to apprehend. The recent change involved a meaningless contradiction; for if A is brought in relation to B in regard to rank and position, that necessarily involves relative rank, if the English language has any meaning. But if the authorities choose to be so foolish as to state, what is evidently not the case and cannot be the case, that relative rank is abolished, they can only mean that the use of this term is to be discontinued, the thing meant by it is and must remain, and the War Minister affirms emphatically and unequivocally that not only has no change been made in the rank and position of any medical officer, but, in deference to the representations of others about a dispute, the meaning of which he declared to be simply inexplicable after the deputations had laboured in vain to make it apparent to him, he has offered to secure the rank and position of medical officers as definitely and precisely as human language can make it, by expressly specifying that each grade in the medical service shall rank, not *with*, but *as* the substantive military rank with which it corresponds, in all and every respect within the sphere which circumscribes and defines the position, functions, and duties of the medical officer. To my mind the word "as" not only includes, but is distinctly a stronger and more satisfactory expression than either "with" or "equivalent to." It must be clearly understood that, as the medical service forms a necessary and integral part of the military machine, it must be provided for and adequately recognised and respected in every way. It would be undignified to ask less; it would be absurd, as well as undignified, to ask more. The professors in our medical universities and schools are told, however, that they must shut their doors upon a public medical service, and an enthusiastic opposition to it is invoked. To what end? To secure honorary rank in substitution for that which medical officers now have; and to get some distinctive combatant military title incorporated with the medical one—such as captain, major, colonel, general. I confidently appeal to the civil medical profession to do nothing of the kind; and I claim to represent the views and feelings of some of the very best men in the service—men proud of their profession and emulous of getting on in and by it, and not by grasping at military titles which would only render them ridiculous in the eyes of those who from a professional point of view had a right to them; men whose professional knowledge is recognised, and who have, in a quiet way, done much to merit consideration.

Is it possible that after about half a century's contention to prove that, as we shared all the dangers, risks, and hardships of combatant officers in the field, supplemented by others in which combatant officers had no share, we should have our due proportion of honours and rewards—of C.B.'s, V.C.'s, and so forth—we should now put forth a claim for *honorary* rank—a rank bestowed upon officers (we speak of them with all respect and esteem) whose duties are of a purely clerical kind, and may be from the beginning to the end of a campaign performed in an office far removed from all possible dangers of a fight, and all the hardships of actual field service? It seems a monstrous step backwards, which these very *military* medical officers are pressing on the authorities! The medical officer is, on the one hand, non-combatant in the sense that the colonel commanding a regiment or an officer commanding a field battery in action is combatant; but, on the other, he is surely not to be put in the same category and on the same platform as the officer indenting for rations or casting up a pay bill. A medical officer's rank is relative, and the relation to other ranks appears to be better defined now than it ever was before, in spite of the abolition of the form of words "relative rank," but the medical officers owe the War Office no thanks for the change. I have no sympathy with that small section of medical officers who are more military than the military themselves. If they think that they are to obtain greater respect—military or social—by the titular military distinctions of Captain, Colonel, and Major, they will only find themselves, and not unjustly, very much mistaken.

I have always understood that the sense of professional trust and honour was so elevated and keen that, to take an illustration, a physician would refuse to make an experiment on a condemned criminal in order to test the truth of any theory—such, for instance, as Koch's comma bacillus being the essential cause of cholera; he would urge that it was his function to save human life, not to destroy it. But now it seems that the highest aim of a doctor is to gain the titles and be confounded with the rank of those whose function it is to fight and destroy life. But if so much value be attached to military titles, it is natural to expect that the holders of them will in consequence despise and depreciate professional ones. What has been the main aim and object of the medical profession—civil and military—of late years but to be welded more closely together by ties of mutual sympathy, and of associated aims, as members of a common profession with common interests? The strenuous efforts now being made to obtain purely military rank and titles must tend to create a very strong impression that these are held to be altogether superior to those arising from professional and academic distinctions. Is that a wise, judicious, or dignified course to adopt?

Advocacy of a cause is one thing; a fair judgment and consistency another. The combatant officer is scarcely tempted into the ranks of the service by the emoluments it offers. Whether the view be right or wrong, wise or silly, still there it is; he values military rank for the power of command it confers and the social value he thinks it gives. Honorary military rank has been bestowed broadcast among other than purely combatant officers, and distinctly with the effect of diminishing the value of such titles. Would there be no ground for the combatant officer's jealousy and dislike to the presence of a Surgeon-Colonel drawing the much higher pay of a medical officer on the one hand, and usurping a purely distinctive military title on the other?

The medical officer is now master of his own household; he has the responsibility of all that concerns the sick and the hospital service, and he has the power to command obedience and enforce his behests within those limits. To secure respect from others you must extend it to those within their sphere of responsibility. If a combatant officer presumed to interfere or to give advice inside the limits of a senior surgeon's duties and responsibilities he would have to pay dearly for his temerity. Surely, with the indisputable rank granted him by Her Majesty's warrant, the medical officer should have no difficulty in maintaining his position and in obtaining that respect from officers of other departments to which he is professionally and socially entitled.

I am, Sirs, your obedient servant, A. M. D.

*** The above letter, which, it will be seen, is strongly confirmatory of the view expressed in our leading article this week, is from the pen of a distinguished medical officer on the retired list.—ED. L.

GASEOUS RECTAL INJECTION IN CONSUMPTION.

To the Editors of THE LANCET.

SIRS,—I have read with much pleasure Dr. Burney Yeo's interesting lecture on a new method of treatment of consumption by gaseous rectal injections. During the last winter I have applied this treatment in a few cases. At first I used the apparatus described by Dr. Burney Yeo in THE LANCET, but lately I have preferred another (Sehet's), in which the gas is allowed to pass directly into the rectum, the amount being regulated by a screw. The pumping of the gas is done away with. The apparatus works well, and the patient can carry on the treatment by himself after he has been taught how to use it. I have always prescribed the "Eaux Bonnes," being careful to exclude all bottles not containing a good supply of sulphuretted hydrogen. At the beginning of the treatment two litres were injected, gradually increasing to four, and after awhile this quantity was injected twice a day. In every case the gaseous

injections were well tolerated. They never gave rise to any local or general disturbance. They were very soon followed by a marked improvement in the general condition of the patient. He gained flesh, the appetite increased, the hectic lessened. In one case tubercular infiltration was progressing rapidly, attended by a high temperature. It ceased to invade the lungs a fortnight after the treatment had been commenced. The patient is progressing favourably. He is still making two gaseous injections daily. It is nearly three months now since he began them. On the other hand, in this as well as in other cases, the bacilli are as abundant as ever; the cough persists, and is, perhaps, more troublesome, a lessened expectoration being one of the consequences of the treatment. Some of the cases left Cannes before I was able to form an opinion as to the ultimate value of this new method, and altogether my cases are too few for me to pass judgment on it one way or the other. I believe, however, that it has done some good, certainly no harm, and with Dr. Burney Yeo I would say that the remedy is worthy of a more extended trial, and that "something" may come out of it.

I am, Sirs, yours truly,

Cannes, April 25th, 1887. H. BLANC, M.D., F.R.C.P.

THE PULSE.

To the Editors of THE LANCET.

SIRS,—I have read Dr. Broadbent's lectures on the Pulse very carefully; but the good they would otherwise do me is largely lost owing to a somewhat lax phraseology. In the first place, we are told the pulse is not an expansion of the artery, but simply an increase of pressure. Now there are three typical variations in the calibre of an artery—a maximum calibre occurring at the top of the pulse, a minimum calibre at the end of the diastole, and a mean calibre somewhat midway between these, corresponding to the mean arterial pressure. If Dr. Broadbent denies that the mean calibre or the minimum calibre is converted into the maximum calibre during the pulse, of course he denies the existence of varying calibres at all; and this is apparently what he means, because his explanation of the pulse is consistent with this view. Instead of varying calibres, he substitutes flattening of the artery, to account for the pulse. I may not properly understand him, and am in doubt whether he means that an artery is only flattened by and during the pressure of the finger on it, or whether the natural condition of an artery during the diastole is one of more or less flattening. If the flattening only occurs when we press with our finger, then the pulse does not naturally exist, for take away the pressure of the finger and the pulse is non-existent. If, on the other hand, an artery is naturally flattened during the diastole, this is utterly inconsistent with that continuous pressure of the arteries on the blood which maintains the circulation during the diastole, for from the moment the cylindrical form is lost pressure is practically abolished. Then we are told that tension and distension are almost similar terms, and mean the same thing. I find, too, by reference to my dictionary, that distension is given as one of the meanings of tension, and that expansion and distension have the same meanings attached to them. Now, according to Dr. Broadbent, during the pulse the pressure is increased, but the expansion of the artery is not increased. If this is so, then the distension is not increased, neither is the tension; and this implies that Dr. Broadbent does not consider pressure and tension as one and the same thing. But, unfortunately, in other portions of his lectures he talks as if they were the same thing; and between these two views those parts of his lectures relating to arterial pressure are lost on me.

I remain, Sirs, yours obediently,

East Greenwich, April, 1887. W. NICHOLSON.

RAGS AS CARRIERS OF INFECTION.

To the Editors of THE LANCET.

SIRS,—I read the able article on the above subject which appeared in your issue of the 30th ult., and, with your permission, would point out that uncleaned rags are often employed for making the flock of the flock bed. In Australia there are many flock-bed manufactories, and I do not know of one in which the rags are washed or otherwise cleaned before their conversion into flock. I am told that in England "it does not pay" to do more than "shake out" the dirt adhering to the rags before putting them in the machine that converts them into that material which composes the soft beds of millions. Exceptions to this practice doubtless exist, but I think medical authority should be brought to bear upon flock-bed makers who neglect to cleanse the raw material upon which they start.

I am, Sirs, yours truly,

R. W. E. MACIVOR, F.I.C., F.R.G.S., &c.,

May, 1887. Late Member of the Central Board of Health, Victoria.

LIVERPOOL.

(From our own Correspondent.)

THE EYE AND EAR INFIRMARY.

THE report of the Eye and Ear Infirmary, just published, shows that in 1886 there were 6109 new eye cases and 2352 new ear cases treated; 68 cataract extractions were performed, in 18 of which irrigation by Mr. McKeown's method was employed. This plan finds increasing favour with the surgical staff in cases of sticky cortex. In a considerable number of unripe cataracts a preliminary iridectomy and artificial maturation by stroking the cornea has been found to give good results.

THE TOXTETH PARK CASE.

A chemical examination of the stomach of the deceased girl, and of such of its contents as could be obtained, was made by Mr. Edward Davies, F.C.S., of the Liverpool Royal Institution, but with a negative result, none of the mineral poisons being found, except a small quantity of bismuth which had been given medicinally. The inference, therefore, is that death resulted from natural causes.

THE CLINICAL STUDY OF SMALL-POX.

Dr. Hope, assistant medical officer of health, has been appointed by the City Council visiting physician at the Park-hill Hospital. This will afford facilities to the students of the Medical Faculty of the Liverpool University College to become conversant with small-pox in its various phases, Dr. Hope, who is the lecturer on hygiene, being most anxious that such opportunities should not be lost.

HOSPITAL SATURDAY.

The 7th inst. being Hospital Saturday, boxes and cages were freely displayed in all parts of the city. Out of over 1000 boxes only 112 have been returned, the contents of which amounted to £397. There is every prospect of the result being considerably in advance of that obtained last year.

Liverpool, May 10th.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

NEWCASTLE JUBILEE EXHIBITION.

ON Saturday last I was, as your representative, privileged to a private view of our Industrial Exhibition, now all but complete, and we can, in the words of our local poet, Dr. Hodgkin, in his very fine opening ode—

> "Upon a bleak Northumbrian moor
> Behold a palace raised."

For palace it is, regarded either as to cost, extent, wealth, or variety of exhibits. Much as I was prepared to see wonders from the articles in our daily press, I must say that all my anticipations were far exceeded when in the building. First as to the site. It is in a park forming part of the Town Moor, and in the northern suburbs of our city. It is only one mile from the Central Station, tramcars passing the building at very short intervals. The space at the disposal of the Executive Committee covers thirty-one and a half acres, or a little in excess of that provided for the late exhibition at Edinburgh. There is thus provided ample room and verge enough, not merely for the exhibition, but for the show of the Royal Agricultural Society of England, which, for the third time in its history will be held in the month of July next in Newcastle. As regards the building, it is con-

structed upon the systems adopted at the exhibitions at South Kensington. It contains a theatre to seat 1500 persons, art galleries, machinery in motion, and an internal garden which covers two and a half acres, while around it runs a pleasant verandah giving shelter from the sun and rain. The band stand is surrounded by pleasant walks and well-arranged parterres. The exhibits are full of interest, and many have a special interest for our profession, which I shall notice in future letters.

NEW HOSPITAL FOR SUNDERLAND.

It is now more than four years ago since the pressing need of a new hospital for fever at Sunderland was pointed out in THE LANCET'S sanitary report on the borough, and it is only just now we read that a commencement is to be made by the laying of the foundation stone, which is fixed to take place next Saturday.

NEWCASTLE INFIRMARY.

At the last quarterly meeting of the infirmary, a gratifying report was read, showing that the income had increased and the expenditure diminished. Dr. Philipson moved the following resolution, which was carried unanimously: "That in consideration of the life governors, the annual subscribers, and weekly contributors having agreed to relinquish their privilege of recommending patients, with the object of making the hospital accessible to the public, Her Majesty the Queen be respectfully invited to allow the institution in the future to be designated the "Royal Infirmary." It is as well to say that it is to be hoped that the governors will not allow their zeal for economy in the management to extend so far as to deprive patients of any necessary comfort. That there is a tendency that way will be apparent when I mention that a governor took strong exception to the amount expended on aerated waters—about £12, I believe for the quarter; indeed, he went so far as to say aerated waters "were a great humbug," and asked why the patients were not given "cold water"; but if this governor had the misfortune to suffer from surgical fever, with irritability of the stomach, he would be in a better position to appreciate the value of aerated waters.

NEWCASTLE DISPENSARY.

A curious dispute took place at the late meeting of the special court of governors called for the purpose of electing a physician. I told you in my last letter that Dr. Beatley, the late resident physician, was the selected candidate, canvassing being prohibited. The chairman ruled that, there being only one name put forth by the Committee of Selection, the election could not take place. There was a good deal said about canvassing, and, although the letter of the rule may have been adhered to, it was plain that the spirit had been somewhat infringed. Candidates have not canvassed, but the governors have been influenced by friends, and of course the candidate who gets the most governors' influence is elected. As it was, the governors present held that, as there was only one name before them, there was no choice, and so the election was postponed.

TYNEMOUTH INFIRMARY.

At a meeting of the Building Committee of the Tynemouth Infirmary, held in the Town Hall, North Shields, on Friday last, the architect presented his plans for the new building, and it was decided to ask the Dowager Duchess of Northumberland to perform the ceremony of laying the foundation stone on the Queen's Jubilee day.

Newcastle-on-Tyne, May 9th.

EDINBURGH.

(From our own Correspondent.)

THE ROYAL COLLEGE OF PHYSICIANS.

CONSIDERABLE interest in Edinburgh has centred in the recent election of the representative of this College on the General Medical Council, in the room of the late Dr. Rutherford Haldane. The election of Dr. Batty Tuke has been to many a surprise, and it indicates clearly the direction in which public opinion is now gravitating amongst the Fellows. There can be little doubt that Dr. Tuke owes his election to something approaching a declaration of independence among the younger Fellows, and that his return shows a tendency to a new departure in the internal policy of the College. He has frequently identified himself with movements of a liberalising nature, and that he is the choice of a majority of the electors shows that such changes in the direction of the College procedure would be received with a large measure of satisfaction. In other respects also the College is to be congratulated on its choice, for Dr. Tuke is generally recognised as a man of exceptional ability in the conduct of affairs, and his wide popularity with the profession in Edinburgh can but react favourably in the interests of the corporation he now represents.

THE COLLEGE OF PHYSICIANS' LIBRARY AND LABORATORIES.

I have had occasion in previous letters to notice the splendid library equipments possessed by the College, and the generous terms on which it placed these advantages within the reach of medical men engaged in study and research. Of late a rule of the College has been rigorously insisted on that indicates a reactionary feeling on the part of the College Council. All applicants for the use of the library not possessing the privileges of Fellowship are now refused access to the books unless they are accompanied by a Fellow *in propriâ persona*. This results in the exclusion of many of our most diligent workers from their only local sources of information on special points in medical literature, and the continuance of such a state of matters must react very disadvantageously upon the vitality of the Edinburgh school. This is not, as far as is known, the result of any abuse of the previous generosity of the College, but seems to have arisen from some increased sense of jealous proprietorship almost inconceivable in a leading medical corporate body. There are hopes that the College will recognise the widespread feeling now abroad on this subject, and will add the grace of liberality to the virtue of loyally maintaining the present effectiveness of its library. In respect to its new laboratories, the College merits the highest praise for its efforts towards creating a greater earnestness in original research. The laboratories are rapidly approaching completeness under the auspices of Dr. Woodhead, who has handsome provision supplied him for making the equipment of the institution complete in every respect. The tariff proposed in relation to work done is no less generous, as it is understood that medical men are to be accommodated as workers free of charge and with the ordinary laboratory necessities supplied at the expense of the institution. In a few weeks these well-furnished rooms will be open for the prosecution of research.

THE COUNCIL ASSESSORSHIP IN THE UNIVERSITY COURT.

On Tuesday the election of an assessor in the University Court was concluded, and resulted in the return of Dr. Heron Watson by a majority of 587 votes, in a gross poll of over 5000 in number.

Edinburgh, May 11th.

DUBLIN.

(From our own Correspondent.)

THE CARMICHAEL PRIZES.

A MEETING of the Royal College of Surgeons was held on Monday last to hear the awards of the judges (Messrs. Robert McDonnell, P. C. Smyley, and S. Chaplin) selected to adjudicate the Carmichael Prize Essay. Sir William Stokes, President of the College, who occupied the chair, said that however opinions might differ as regarded either the wisdom or the utility of the design of the founder of these prizes, yet it was satisfactory to learn that the great majority of the essays sent in possessed very considerable merit. More especially was this the case with the essay which had obtained the first place. It was a work of exceptional merit, and the judges had stated that it was one likely to be of great utility as a work of reference. The first prize has been awarded to Mr. Walter Rivington of London, for his essay on "Every Man is a Debtor to his Profession," and the second prize to Mr. T. Laffan, for his paper on "Aristides." It is a circumstance worth noting that on the last occasion when the Carmichael prizes were awarded both these successful essayists respectively obtained first and second prizes.

MEDICAL STUDENTS' ASSOCIATION.

A meeting of those interested took place at the Ledwich School of Medicine last week to consider the proposed

changes in connexion with the Conjoint Examination Scheme adopted last October by the Colleges of Surgeons and Physicians. After some discussion it was resolved to send a petition to both Colleges asking to be allowed to continue their studies according to the regulations under which they commenced their medical curriculum, making only such alteration in the final or qualifying examination as the Medical Act of 1886 required. It was pointed out that, in consequence of the uncertainty as to what might be required of them at the coming examinations in July and October, they would find it most difficult to give their minds to study, and that they feared it would be impossible to be prepared for the conjoint examination at such short notice should they have to enter for it. No postponement would get them over the difficulty, as school and hospital instruction would cease during the summer holidays. It has been arranged that a deputation of the students belonging to the Association shall wait on the Joint Committee of Management in reference to the matter.

ZYMOTIC DISEASES IN DUBLIN.

During the March quarter the number of deaths from zymotic diseases was 212, being 204, or 49 per cent., below the average for the corresponding quarter of the past ten years. As compared with the December quarter of last year, the deaths from scarlatina show a decrease of 44, fever of 8, and diarrhœa and dysentery of 61.

Dr. Ahearn has resigned the post of medical officer for Ballickmoyler and Newtown Dispensary; and his successor will be appointed on the 20th inst.

Dublin, May 10th.

ROYAL COLLEGE OF PHYSICIANS.

AT an extraordinary Comitia on the 12th inst., Sir W. Jenner, Bart., President, in the chair, the following gentlemen were admitted to the Fellowship:—Drs. G. Oliver, R. Cory, H. R. Crocker, F. Buszard, C. J. Cullingworth, W. J. Mickle, G. A. Heron, and J. Anderson.

A memorial, signed by 270 medical officers and teachers in London hospitals and schools of medicine, in support of the proposal that the two Colleges should obtain powers to grant a degree in Medicine, was read. It was referred to the Committee of Delegates.

Notification was made through the Foreign Office that an International Congress on Hygiene would be held in Vienna in the month of September.

On the motion of Dr. C. T. Williams, seconded by Dr. Julius Pollock, it was resolved to hold a *conversazione* in the month of June.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT an ordinary meeting of the Council of the Royal College of Surgeons on Thursday last the Minutes of the extraordinary meeting of the Council were confirmed.

An address of congratulation to the Queen on the completion of the fiftieth year of her reign was read, approved, adopted, and entered on the Minutes, and directed to be sealed and presented in the proper quarter.

On the report of the Nomination Committee, Mr. Howard Marsh was elected an Examiner in Anatomy for the Membership, and Mr. Davies-Colley for the Fellowship.

Further memorials from Mr. B. Brian were presented, in opposition to that recently presented by Dr. Wilks.

The Council resolved not to appoint any separate Examiners in Medicine and Midwifery for the ensuing year, on the ground that by the Medical Act of 1886 the diploma of Member will not be registrable alone as a qualification for practice.

The following resolution was adopted, and referred to the Colleges' Land Committee for further consideration and report:—"That, in accordance with the proposals contained in the report of the Colleges' Land Committee dated the 13th of December, 1886, it be recommended to the Council, with respect to the report from the President, senior Vice-President, and Mr. Marshall, referred to the consideration of the Committee, that the Council do agree with the Royal College of Physicians that the vacant ground on the Embankment be occupied by buildings suitable for such scientific purposes as may hereafter be resolved upon."

The Council proceeded to the further consideration of the report dated April 2nd, 1887, from the committee of delegates of the Royal College of Physicians of London and the Royal College of Surgeons of England, on the question of the granting by the two Colleges of degrees in Medicine and Surgery. This report included a recommendation from the Committee of Delegates that the overtures made on the part of the Council of University College and King's College, London, that the four Colleges should confer with a view to obtaining powers to jointly get degrees in Arts, Science, and Medicine, should not be entertained; and it was agreed to take the necessary steps to petition the Crown to grant a new Charter to enable the two Colleges to give degrees in Medicine and Surgery.

A petition sent in by Mr. F. Treves addressed to the Presidents of the two Colleges, and signed by representatives of all the metropolitan schools, in favour of the grant by the two Colleges of degrees in Medicine and Surgery, was received (see page 997).

The usual resolutions with regard to the election of members of Council on July 7th at 2 P.M. were passed. The following are the retiring members of Council:—Mr. Hutchinson, Mr. John Wood, and Sir Spencer Wells.

It was agreed, on the motion of Mr. Heath, that an extraordinary meeting of the Council be held, to be called at such a time as the President shall determine, to consider the disposal of the Erasmus Wilson bequest.

Obituary.

WILSON FOX, M.D., F.R.C.P.L., F.R.S.

WILSON FOX was born at Wellington, in Somersetshire, on November 2nd, 1831. His family belonged to the Society of Friends, a large number of whom were more or less closely related to him. His early education was at Bruce-grove, Tottenham; but he became a student of University College, London, in 1847. He studied in the Faculty of Arts, and obtained his degree of B.A. in 1850; he then entered the Faculty of Medicine in the same College, and among other honours obtained the Fellowes' gold medal in 1853. He was clinical clerk and physician's assistant to Dr. Walshe. He took his degree of M.B. Lond. in 1854, obtaining honours in Medicine, and proceeded to the degree of M.D. in 1885. He then studied in Edinburgh, where he was resident in the Royal Infirmary for a year. After this he visited Paris and its medical schools, on his way to Vienna, where he remained for a year. Subsequently he went to Berlin, and for two years studied assiduously, under the guidance of Professor Virchow. It was here, under the personal direction of Virchow, that his great powers for anatomical investigation were educed, stimulated, and developed. While in Berlin he made an important observation with regard to the degeneration of the gastric glands, finding in them the same kind of change that had been described by others in the intimate structure of the kidney in Bright's disease. The results of this investigation were given after his return to this country.

Dr. Wilson Fox married, in 1859, Emily, daughter of Wesley Doyle, Esq., and not long afterwards was invited to accept the post of physician to the Royal Staffordshire Infirmary. This invitation he accepted, and at once entered upon a career of successful practice. His reason for going there was that the hospital presented a large field for continued medical and clinical research. After some time his health failed, and he came to London to be under medical care; but from this ill-health he entirely recovered, and returned to Staffordshire. In 1861, upon the strong recommendation of Professor Virchow, he was appointed Professor of Pathological Anatomy in University College, London, and not long afterwards assistant physician to University College Hospital. He was elected a Fellow of the Royal College of Physicians in 1866, and in 1867 physician to the hospital, Holme Professor of Clinical Medi-

cine, and also a Fellow of University College. He contributed a paper in 1866 to the Philosophical Transactions of the Royal Society on the "Development of Unstriated Muscular Fibre." In 1870 he was appointed Physician Extraordinary to the Queen, and became a Fellow of the Royal Society. Soon after the marriage of the Duke of Edinburgh Dr. Fox was appointed Physician in Ordinary to their Royal and Imperial Highnesses. A most important paper was published in the Transactions of the Royal Medical and Chirurgical Society on the "Origin, Structure, and Development of the Cystic Tumours of the Ovaries"; also a remarkable contribution to science in the *Medical and Chirurgical Review* on "Purpura," giving the details of a fatal case, accompanied by waxy degeneration of the muscles. In this paper he gave full evidence of his great power as a microscopical observer. He contributed also various papers to the Pathological Society, and was elected its vice-president, an office which he held from 1875 to 1877. At this time he became librarian of the Royal Medical and Chirurgical Society, and continued to perform the duties of that office until his death. In 1868 Dr. Wilson Fox delivered a lecture before the Royal College of Physicians on the Artificial Production of Tubercle in the Lower Animals, which was afterwards published in THE LANCET, and re-published in a separate form. This paper contained in clear and concise form the results of long-continued research, and was a most valuable addition to our knowledge of the etiology and pathology of tubercle. In 1871 Dr. Wilson Fox originated in this country the treatment of hyperpyrexia by cold affusions and baths, and, in spite of apparently the most obvious difficulties and dangers, carried his case through to a successful issue. He wrote the article on "Diseases of the Stomach" in "Reynolds' System of Medicine," which was subsequently re-published in a separate form. He contributed also to the same work the results of one of his most important researches in his exhaustive article on "Pneumonia."

At the Pathological Society, in 1873, Dr. Fox opened a discussion on the Anatomical Relations of Pulmonary Phthisis to Tubercle of the Lung, occupying the whole evening in a lucid exposition of the subject, founded chiefly on his own work, but taking cognisance of all that had been done by others, from Bayle to Niemeyer. Another important contribution to science was given by him to the Medical and Chirurgical Society about the same time, on the Temperature, Pulse, and Respiration in Phthisis and Acute Tuberculisation of the Lung, founded on eighty cases observed by himself in University College Hospital. At the meeting of the British Medical Association in Manchester (1877), he opened a discussion on the Mortality of Pleurisy considered in relation to the operation of paracentesis thoracis, accompanied by most careful tables of mortality from various sources. His great work on Diseases of the Lungs is not yet published, but, we believe, is almost complete. It has occupied him during the last fifteen or sixteen years, and is accompanied by an atlas containing his own microscopical drawings, and coloured plates, the latter produced under his most careful direction.

Dr. Wilson Fox's first wife died in 1870, leaving him with three sons and three daughters. In 1874 he married Evelyn, daughter of Sir Baldwin Wake Walker, Bart., widow of the late Captain Hugh Burgoyne, R.N., V.C., who survives him. We have already given an account in this journal of Dr. Fox's last illness, and of its sad termination at 4 A.M. on May 3rd, at Preston in Lancashire. The funeral took place at Taunton in Somersetshire, on Friday, the 6th inst., where several of his nearest relatives had been buried. Mrs. Wilson Fox and all his sons and daughters were present, with a number of relatives and friends. The Queen was represented by Dr. Russell Reynolds, Physician in Ordinary to Her Majesty's Household, who was entrusted with a wreath to be placed by him on the coffin on Her Majesty's behalf. Attached to the wreath was a card, on which Her Majesty had written the following words: "A mark of sincere regard and esteem from Victoria R." A very large number of most beautiful wreaths, crosses, and other tokens of affection were sent from sorrowing friends and relatives. They were placed in the chapel, and then around the grave. The service was read by the Rev. Harry Jones, M.A., hon. chaplain to the Queen, Prebendary of St. Paul's, an affectionate friend for many years, assisted by the Rev. F. Baggalay, M.A., son-in-law of Dr. Wilson Fox.

In this endeavour to give some slight sketch of Wilson Fox's life, which was so beautiful, and of his death, which was so sad, we feel that but scant justice has been done to the character of one so great and good; and we therefore add the impressions that were made on us through forty years of intimate acquaintance and most loving friendship.

As a "student" Fox was industrious in his work and thorough in his play. He enjoyed both, and one as much as the other. In the class of Professor Malden, he entered into the mirth of Aristophanes with intense pleasure and amusement, and his keen sense of humour enhanced to him the delight of hearing the ancient Greek author's fun "done into English" by the staid and learned modern Professor. He was the same in the mathematical course, and in other classes in the Faculty of Arts; and when he commenced his career in the Faculty of Medicine he was a most diligent learner in the classes of Sharpey, Graham, and Quain; and, subsequently, in the hospital wards, under the direction of Walshe, Jenner, and Parkes. But, at the same time, he gave himself healthy recreation in walking, riding, cricket, racquets, and music; and during vacation days in mountain climbing, both in England and abroad. Work and play were duly balanced, and each helped the other, and each to him was a delight. He listened and observed eagerly, assimilated rapidly and yet thoroughly, so that he could readily reproduce his knowledge when called upon to do so.

As "physician to a hospital," in both Newcastle and University College Hospital, Dr. Wilson Fox exhibited the most admirable combination of qualities. He was painstaking to the very highest degree in his study of each individual patient. To him the sufferer was a "human being," and not only a "case" from which to learn, and so add his mite, as he regarded it, to the sum of human knowledge. He felt that he had something to "do" as well as something to "learn." It was "the man" he had to investigate and treat, and the obvious disease from which he suffered was but a part of him. He could quickly make a diagnosis of the immediate source of suffering, and as readily give relief, where such was possible. But he was not content with any such routine work as that might be. He would trace disease, as far as could be, to its source. He made it his business to know "the man" thoroughly, to grasp facts that the stethoscope could not reach, and, while searching into the morbid physical processes of every organ in the body, kept in view the heavy burden of the soul, which lay beneath and often was the source of the greatest suffering. This he did by inspiring utter confidence in his kindness, knowledge, sympathy, and power to help. These qualities rendered him to his hospital patients, as well as to others, the successful physician, the wise and steady counsellor, the beloved and trusted friend. His great success as a "teacher" depended upon the thoroughness of his knowledge of the thing he had to teach; his ready appreciation of the plane upon which his pupils were standing; his sympathy with them in their blameless ignorance, and in their desire to learn; his peculiar lucidity of expression; his rapidity of illustration by analogy; his versatility and humour; and, most of all, his earnestness. Whether in college theatre or at the bedside of patients, he would exhibit his mastery of the minutest details, but would, at the same time, bring his genius as a burning glass to gather all details to a focus, and place in the strongest light the primary and all important points that needed observation, study, and recollection. In thus concentrating the facts or dogmas with which he dealt, he achieved a double success, he presented the subject-matter of his lesson in the best form possible, and concentrated at the same time the attention of his pupils. The attention he had won by his skill he riveted by his enthusiasm. His teaching was of the highest moral tone, everywhere and at all times; and although he would most kindly give individual help to a dull student who was struggling to advance, he could give him, with all good grace, a sharp goad onwards; an idle and conceited man he would at once put in his proper place, and perhaps "treat with bitter banters"; but "a fool," although he would be generous to him, he could not abide. His pupils, now scattered far and wide, must be numbered by many hundreds, and there can be among them no one worthy of the name of student, who will not sorrow deeply at the loss of him to whom they owe so much, nor fail to cherish with profound gratitude the memory of their teacher and their friend. On his dying bed he sent this message to his pupils: "Tell my boys, the students of University College, how much I love them. Tell them that the surest road to success is to have a high

standard of right and honour, and to adhere strictly to it." This message was given to Dr. Arkle, a former pupil, for whom he had a great regard, and for whom he had sent when becoming ill at Preston, and who watched him with devoted attention to the last. It was communicated to the students by Dr. Gowers, who enforced upon them the great example that Dr. Fox had set before them.

In his capacity as a "worker in physiology," pathology, and medicine, Dr. Fox followed closely in the steps of the greatest investigators of Nature's secrets. Their method was his—to ascertain the facts by every means in his power, to see all that was to be seen, to read all that was written in the Book of Nature, and to "read between the lines" by instituting experiments, and so shifting the relations between materials and forces, both inside and outside the living organism, as to anticipate the results of slowly accumulated observations. His work was done in no random way, but with distinct and careful forethought; he recorded faithfully, step by step, the facts that lay before him; proving, and, indeed, almost over-proving, the conclusions to which he had arrived, advancing by a strict process of induction, guided by acute selective faculty between the great and small, the relevant and irrelevant, or collateral, until he was convinced of the accuracy of the answers Nature had given to his inquiries, and then, and not till then, placing them as truth before those who wished to know how he had read her mysteries. His power of observation, innately good, had been sharpened to the finest, keenest edge by his long-continued studies in England, Scotland, and Germany. He had great faculty for original investigation, and an energy that was as untiring as it was patient. But beyond these qualities, which were his habitual working tools, he was endowed with undeviating devotion to truth, and yet further with most buoyant hope.

As an "author" Dr. Fox's great qualities found worthy expression, but only those who knew him intimately in his mode of writing and of publishing can be aware of the great cost and enormous amount of labour he imposed upon himself in order to secure accuracy and fulness. Many years ago it was said by a great author that "no man should write a book unless he could put into it all that was known until his time, and so add to it that there could be nothing to be said afterwards." In the line of work which Dr. Wilson Fox had adopted the latter term was an impossibility, but in so far as there was possibility he secured the former. His reading of all literature, past and present, that bore upon his subject was wide, deep, and critical; and the pains which he took to verify quotations by one author from another, whether in monograph, contribution to scientific journals, in this country or elsewhere, was beyond all praise. His work was so elaborated that sometimes before he had reached the end of an article some fresh papers came forth from the teeming press of France, Germany, Italy, and America, and all that was worthy in these he felt bound to digest and introduce. This marvellous industry, while it has given the greatest value to his already published works, has yet delayed the production of his "Magnum Opus," now nearly finished.

Regarded as a "member of the medical profession," he was profoundly interested in all that affected its welfare. "Order" and "Progress" were the watchwords of his life. He was earnest to preserve what was right; eager to make that better; to remove what was wrong or unhelpful; to widen and advance, by new methods and in every direction, its range of usefulness; and to secure this end, by reduction of unnecessary work, and the addition of other modes of procedure which might, in his opinion, conduce to this end. Keenly critical, he was no mere critic, but was always full of suggestion and constructive genius. Having once made up his mind, he rarely swerved from his purpose, but maintained his ground by considerate courtesy to those who differed from him; by absolute intrepidity and perseverance in defending all that he believed was right; and so he often succeeded by impressing upon those who heard him the conviction of the entire sincerity of his heart and judgment, and also by the eloquence and impetuosity of his words, which made many feel that, in spite of obstacles, all things were possible to him that believed.

In his dealing with private patients he was all that has been said about him as hospital physician; and there is little more to add. He was entirely unselfish, truthful, and almost infinitely tender. With their friends he was the same; and if, sometimes, his eager, earnest look might have given the feeling that he was over-anxious, those who knew him best knew also it was the outcome of his heart's deep feeling—neither alarm nor even fear, but—the unconscious expression of his loving sympathy.

As a "man," Wilson Fox was a Christian gentleman in the best, fullest, and highest meaning of those words. He lived soberly, righteously, and godly. Careful in his living, for the sake of others and himself, he was righteous to all with whom he had to deal, and his motives came from the highest source; he was eminently a godly man. Free from sectarianism as he was free from cant, he took great interest in the Christian Association of his College, and often gave wise words of counsel to its members.

As a "friend," only those who knew him best and loved him most can feel how absolutely impossible it is to find, in the poverty of words, any adequate expression of their thankfulness for his life and their unspeakable sorrow at his death. Many will feel, as with tear-blinded eyes they read this slight attempt, or any others that may be written, to recount his life, and tell their grief that it has now been taken from their earnest gaze, the full meaning of our great poet, when he wrote—

> "I cannot see the features right,
> When on the gloom I strive to paint
> The face I know ....."

There are many, however, who will be consoled to know that a few hours before his death, Wilson Fox said, in reply to a question put to him by a member of his family, "My only prayer is 'Thy will be done.'"

On the next morning, when obviously and consciously dying, and after his eyes had been fixed for a few minutes on the angle of the room, and as some grey streaks of dawn were entering it, he said suddenly—"There is a great light, a great glare of light.....I feel so strange.....a glare of light. What is it, Reynolds?" The reply was—"It is the peace of God." He grasped his friend's hand firmly and said, "God bless you," and in a few minutes after this

> "His soul to Him who gave it rose.
> God led him to his long repose,
> His glorious rest.
> And though the warrior's sun has set,
> Its light shall linger round us yet,
> Bright, radiant, blest."

Yes, dear Wilson Fox has gone into that light in which he trusted all his life through; the light that knows nor cloud nor shadow. This world is greatly poorer, but the higher world is richer in receiving, with bright welcome, a soul so strong, so loving, so good, so tender, and so true.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentleman, having passed the necessary examinations for the diploma, was at an ordinary meeting of the Council on the 12th inst. admitted a Member of the College:

Mitchell, Richard Pryce, St. Mary's-square, Cardigan.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At a recent meeting of the Court of Examiners the following gentleman was admitted a Fellow of the College:—

O'Brien, John William, Melbourne.

UNIVERSITY OF DUBLIN.—The following degrees were conferred last week by the Vice-Chancellor of the University:—

LICENTIATE IN MEDICINE.—Alfred Russell Darley.
BACHELOR IN SURGERY.—Armstrong Herbert Swifte Todd.
BACHELOR IN MEDICINE.—Walter James Buchanan, Robert William Henry Jackson, Henry Simpson Lunn, William Moyle O'Connor, Perceval Cecil Ryan, Armstrong Swifte Todd, and John Henry Du Bedat Wnaite.
DOCTOR IN MEDICINE.—George Thomas Revington.

SOCIETY OF APOTHECARIES.—The following gentlemen, having satisfied the Court of Examiners as to their knowledge of the Science and Practice of Medicine, Surgery, and Midwifery, received certificates entitling them to practise as Licentiates of the Society on May 5th:—

Jaques, John Warren, Tyndale-place, Islington.
Pott, Francis Henry, Cornwall-gardens.
Worrall, Charles Lloyd, Buckfield, Leominster.
Whicher, Alex. Hastings, Westcombe Park, Blackheath.
Weld, Octavius, London, Canada.
Wooldridge, Arthur Tylee, Winchester, Hants.

On the same day four others passed the Primary Examination, four the Surgical, and one for Assistant.

[The name of "Francis Forbes Lanyon Penno" was in-

advertently omitted in the list of candidates who passed their examinations on April 28th, and received certificates to practise.]

WESTMINSTER HOSPITAL MEDICAL SCHOOL.—Mr. Edward Cullinan has been elected to the Natural Science Entrance Scholarship.

JERVIS-STREET HOSPITAL, DUBLIN. — This institution has received £500, being a bequest by the late Captain Geary.

PORTSMOUTH has spent nearly £150,000 in improving its drainage. The new works were inaugurated on the 9th inst., with a pomp and ceremonial befitting their magnitude.

PRINCELY DONATIONS.—Sir George Stephen and Sir Donald Smith have given $500,000 each to found a Royal Victoria Hospital for the sick and poor of Montreal, and that city gives a fine site for the buildings.

KING'S COLLEGE HOSPITAL.—On the 10th inst., Princess Louise opened a grand bazaar in King's College, Strand, in aid of the funds of this institution. The hospital, which was founded in 1839, relieves annually about 20,000 persons.

THE FRENCH HOSPITAL.—The Queen has graciously consented to be patron of the French Hospital and Dispensary, Leicester-place, Leicester-square, and has sent a handsome donation towards the building fund of the new hospital about to be erected on a site in Shaftesbury-avenue.

ANDERSON'S COLLEGE MEDICAL SCHOOL.—In connexion with the reconstitution of Anderson's College under the scheme of the Glasgow and West of Scotland Technical College, the Medical Faculty of Anderson's College will in future be carried on as a separate incorporation, under the title of "Anderson's College Medical School."

MEATH HOSPITAL, DUBLIN.—The following prizes were awarded at the termination of the winter session:—First Medical Prize: Harry P. Sloggett. Second Prize: William Bagot. First Senior Surgical Prize: Thos. Galavan. Second Prize: Alfred Bewley. First Junior Surgical Prize: Oliver L. Robinson. Second Prize: George Hepenstal and Ernest Hawthorne.

THE FREEMAN CONVALESCENT HOME, BATH. — At a meeting of the Royal United Hospital Committee, held last week, the Mayor (Alderman Murch) presiding, it was decided not to accept the responsibility of the management of the Convalescent Home on Lansdown, given by Mr. H. W. Freeman as a Jubilee gift, towards the endowment fund of which only £1700 has been collected.

THE Committee of the Liverpool City Hospital, Netherfield-road, have accepted a tender for the erection of a new administrative block, laundry, mortuary, and boundary walls, together with additions and alterations to the east pavilion, and the formation of a complete system of drainage for the whole site of the hospital, for the sum of £10,583.

INSTRUCTION TO VOLUNTEER MEDICAL OFFICERS.—A course of lectures to Volunteer medical officers is now being given by Dr. Walter Pearce at the headquarters of the Volunteer Medical Staff Corps. A lecture on Barrack and Camp Hygiene will be delivered in the Parkes Museum on Wednesday, May 25th, at 7.30 P.M. Dr. Farquharson, M.P., will take the chair.

GLASGOW UNIVERSITY CLUB, LONDON.—Sixty-five of the members of this Club, with their guests, dined together at the Holborn Restaurant on the evening of Friday, April 29th. Professor Gairdner of Glasgow was in the chair. Amongst those who spoke after dinner were the Marquis of Lothian, K.T., Lord Watson, Sir F. Sandford, K.C.B., Lieut.-General Sir A. Alison, Bart., K.C.B., Sir T. A. Colt, Bart., M.D., and Professor McCall Anderson, M.D. During the evening the chairman read a congratulatory telegram sent to the Club by Principal Caird on behalf of himself and the Chancellor and professors of the University of Glasgow. The Club now numbers over 120 members. The honorary secretaries are Dr. Heron, 57, Harley-street, W., and Mr. McIlraith, 3, Furnival's-inn, E.C.

LEITH HOSPITAL.—The series of improvements in this hospital, which have been in progress for some time, have now been completed, several wards having been added to the charity.

SMALL-POX IN JAMAICA.—According to the latest advices from Jamaica, the epidemic of small-pox which has prevailed on the island since March, 1886, shows but slight signs of abatement. Between March 13th and 27th last 330 cases occurred, of which 19 were fatal. Since the commencement of the epidemic there have been altogether 6182 cases and 590 deaths, of which 1990 cases and 353 deaths were in Kingston.

THE SANITARY CONDITION OF WARSAW.—Hitherto the inhabitants of Warsaw have been drinking Vistula water drawn from where the river is polluted by the drainage of the town, and the sewage has been running through open gutters, with which the streets are lined on both sides, emitting pestilential odours. Important water and sewage works, designed to rectify this intolerable condition of affairs, are now approaching completion.

THE HOSPITALS ASSOCIATION.—The annual general meeting of members and associates will be held at the rooms of the Society of Arts, John-street, Adelphi, on Wednesday, the 18th inst., at 5 P.M., at which the President, Sir Andrew Clark, Bart., M.D., F.R.S., will preside. On the evening of the same day the Association will be held at the rooms of the Medical Society of London, at 8 P.M., when a paper will be read by Dr. Wm. Collier, on "The best means to prevent the Abuse of Hospital Charity."

THE SANITARY CONDITION OF POOLE.—On the 11th inst., a Local Government Board inquiry was held at Poole into the application of the Town Council for leave to borrow £3000 for the erection of public baths. The inspector ascertained that there was no system of sewerage in the town, and expressed the opinion that the Local Government Board would not be justified in giving encouragement to the growth of an increasing town like Poole unless there was simultaneously carried out a thorough system of sewerage. The mayor expressed the opinion that the death-rate of the town would increase if a system of underground sewers were substituted for the present cesspool system.

MEDICAL NOTES IN PARLIAMENT.

The Lunacy Board of Scotland.

ON the 5th inst., in the House of Lords, the Marquis of Lothian presented a Bill restoring to the General Lunacy Board of Scotland powers to alter, enlarge, or restrict, in such manner as may be necessary, the present lunacy districts in Scotland. The Bill was read a first time.

Smoke Nuisance Abatement (Metropolitan) Bill.

On the 9th inst. Lord Stratheden and Campbell formally moved the second reading of this Bill.—The Duke of Westminster, in supporting the second reading, referred to the action of their lordships in 1884, when the same Bill was carried on a division, and concluded by asking them to give a second reading to the Bill, on the ground that it would be conferring a boon on those who were constrained to pass the bulk of their lives in an atmosphere greatly contaminated by smoke.—Lord Mount-Temple commented upon what he termed the barbarous circumstance that in London one-half of the fuel used did not produce heat at all, but simply rose into the atmosphere, irritating our nostrils and throats, and inflicting enormous injury on buildings and everything. The Bill would, he thought, provide better machinery than at present existed without, at the same time, making any alteration in the law, and there was every reason to believe that the measure, so far as it went, was not only a useful but a safe one.—The Marquis of Salisbury explained that the Government could not resist the second reading, but he hoped that the noble lord would allow sufficient time to elapse before the stage of Committee to enable the metropolitan authorities to take cognisance of the Bill.—The Bill was ultimately read a second time.

Cremation.

On the 10th inst., Lord Forbes moved for a return of the number of cremations that had taken place in England within the last five years, and asked by what authority and under what regulations they were permitted.—The Marquis of Salisbury said that the Government would have been willing to give such a return if it had been in their power; it was impossible, however, for them to do so, because, cremation being a matter of individual discretion, and not an official proceeding, no records were kept, or at least none that were accessible to the Government.—The motion was withdrawn.

Ventilation of the Vote Office.

In the House of Commons on the 5th inst., in answer to Dr. Tanner, Mr. Plunket stated that he was afraid it was true that the Vote Office is inconveniently small, and that at times when much crowded the ventilation is not very good, but he had not heard that the existing arrangements have proved injurious to the health of the officials in that office. He feared there would be considerable difficulty in mending the matter,

but he would consult with Dr. Percy as to what could be done as to substituting electric for gas lighting. The difficulty was that the plant for the electric lighting was already strained to the utmost.

The Vaccination Acts.

On the 6th inst., **Mr. Channing** asked the Secretary for the Home Department whether his attention had been called to the circumstances attending a recent execution of a distress warrant on a person residing at Kettering for non-payment of a fine under the Vaccination Acts, and whether he would make some representation to the local bench of magistrates to prevent any similar occurrences.—Mr. Stuart Wortley said that he had received a report as to the circumstances of this distress, but would cause further inquiries to be made in the matter.

Pleuro-pneumonia in Dublin.

In answer to Sir J. Swinburne, Lord J. Manners said that Her Majesty's Government had not taken any steps to prevent the landing in Great Britain of cattle from any part of Ireland; but as a result of correspondence on the subject the Irish Government had passed an order with the object of preventing the exportation of animals from certain districts in or near Dublin in which pleuro-pneumonia was known to exist. The correspondence would be laid before Parliament.

Female Labour at Collieries.

On the 9th inst., in reply to **Mr. W. M'Laren**, **Mr. Stuart Wortley** stated that the Secretary of State would be pleased to receive a deputation of those opposed to the prohibition of labour by women and girls at the pit bank. He would undertake that discussion on the clauses of the Bill in committee should be postponed for a week, but would avail himself of the earliest opportunity to take the general discussion before going into committee.

Army Medical Officers.

In the House of Commons on Thursday, **Dr. Clark** asked the Secretary of State for War whether, considering the great dissatisfaction that exists amongst medical students and the medical profession generally at the abolition of relative rank, which dissatisfaction may seriously diminish the number of candidates for the Army Medical Service, he will advise Her Majesty to issue a Warrant conferring honorary rank on all medical officers, and place them at least in as good a position as the officers in the Commissariat, Ordnance, and Pay Departments.—**Mr. Stanhope**: I think I have told the House several times that the abolition of relative rank will in no way alter the position or status of any medical officer. I have no reason to suppose that these officers are desirous of being called by titles which dissociate them from their duties.—**Mr. William Corbet** asked the Secretary of State for War whether, in view of the proposed alterations in the new Warrant with reference to the medical department of the army, the same privileges as enjoyed at present by the Royal Engineers would be extended to medical officers, viz., "That an officer, placed on half-pay on account of ill-health incurred in and by the service, may reckon time on half-pay, not exceeding one year, towards promotion, towards voluntary retirement, and towards retired pay."—**Mr. Stanhope**: The general rule for all departmental offices is not to reckon time on half-pay towards promotion or retirement. Medical officers come under this rule, in common with officers of all other departments.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BARRON, JOHN, M.D., M.Ch. Roy. Univ. Irel., has been appointed Medical Officer for the No. 1 District of the Belfast Dispensary, vice Barron, deceased.

COPLEY, WILLIAM HENRY, M.R.C.S., L.R.C.P.Lond., has been appointed Honorary Surgeon to the North Cambridgeshire Hospital, Wisbech, vice Wm. Roy, M.D.Ed., resigned.

DAVIES, ARTHUR HOLDSWORTH, L.R.C.P., M.R.C.S., has been appointed Resident Medical Officer to the City Hospital, Netherfield-road, Liverpool.

GRIFFITHS, ERNEST E., L.R.C.P., M.R.C.S., L.S.A., has been reappointed Government Medical Officer and Vaccinator for Blayney District, New South Wales.

HULL, WALTER, M.B. Lond., M.R.C.S., has been appointed Senior House-Physician to the National Hospital for the Paralysed and Epileptic, Queen-square, Bloomsbury.

MACKINTOSH, ANGUS, M.D.Glas., has been reappointed Medical Officer of Health by the Chesterfield Rural Sanitary Authority.

METCALFE, JAMES, L.R.C.P., L.R.C.S.Ed., L.M., has been elected Dispensary Surgeon to the Bradford Infirmary, vice W. J. V. Harle, resigned.

MILLSON, GEORGE, M.R.C.S., L.R.C.P. Lond., has been appointed Temporary Medical Officer of Health for the Parish of Newington, vice Iliff, deceased.

NEWBY, C. H., F.R.C.S.Eng., has been appointed Medical Officer to Out-patients at the Royal Portsmouth, Portsea, and Gosport Hospital.

PERKINS, WHITFIELD, M.D.Dur., M.R.C.S., has been appointed Medical Officer for the Fulbourn District of the Chesterton Union.

RIGGE, JOHN A., M.R.C.S., L.R.C.P.Lond., has been appointed Medical Officer for the Hambledon District of the Henley Union.

STEWART, W. R. H., F.R.C.S.Ed., has been appointed Aural Surgeon to the Great Northern Central Hospital, vice A. B. Cumberbatch, resigned.

SYMONS, JOHN, M.R.C.S., L.S.A., has been appointed Surgeon to the West Cornwall Dispensary and Infirmary, vice Henry Grenfell, deceased.

VALPY, CHAS. E., B.A.Oxon., M.R.C.S., has been appointed Junior House-Surgeon to the Cancer Hospital, Brompton, vice A. C. Dove, M.B., M.S., M.R.C.S., resigned.

WILLIAMSON, R. T., M.B., B.S. Lond., has been appointed Junior House-Physician to the National Hospital for the Paralysed and Epileptic, Queen-square, Bloomsbury.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Dispenser. Salary £70 per annum, with dinner, or an equivalent.

BLACKBURN AND EAST LANCASHIRE INFIRMARY. — House-Surgeon. Salary £100 per annum, with board, washing, and lodging.

CHARING-CROSS HOSPITAL, Strand, W.C.—Assistant Surgeon. Medical Registrar.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark-bridge-road, S.E.—Registrar and Chloroformist. Salary £30 per annum, with additional £20 if the post is held for twelve months.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST AND THROAT, Margaret-street, Cavendish-square, W.—Honorary Visiting Physician.

LINCOLNSHIRE COUNTY LUNATIC ASYLUM, Bracebridge. — Medical Superintendent. Salary and emoluments £400 per annum, with furnished house, coals, gas, milk, vegetables, and washing.

LIVERPOOL NORTHERN HOSPITAL.—Assistant House-Surgeon. Salary £70 per annum, with residence and maintenance in the house.

MADAGASCAR MEDICAL MISSION.—Superintendent of Hospital &c. Salary £150 to £200 a year, house, outfit, &c.

NEWCASTLE-UPON-TYNE INFIRMARY.—House-Physician. Salary £100 per annum, with board, lodging, and washing.

ROTHERHAM HOSPITAL.—Assistant to the House-Surgeon. Rooms, commons, and washing in lieu of salary.

RURAL SANITARY AUTHORITY OF THE STAINES UNION.—Medical Officer of Health. Salary £75 per annum.

ST. THOMAS'S HOSPITAL.—Librarian. Salary £150.

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL.—Lecturer on Systematic Physiology.

TAWD VALE COLLIERY SICK AND ACCIDENT SOCIETY. Skelmersdale, Lancashire.—Medical man. Salary about £150 per annum.

TEIGNMOUTH, DAWLISH, AND NEWTON INFIRMARY AND CONVALESCENT HOME.—House-Surgeon and Dispenser. Salary £71 per annum, with board (beer excepted), lodging, and washing.

UNIVERSITY COLLEGE, London.—Holme Professor of Clinical Medicine. Professor of Pathology.

VICTORIA HOSPITAL FOR CHILDREN, Queen's-road, Chelsea.—Assistant Surgeon in the out-patient department.

WEST LONDON HOSPITAL, Hammersmith-road, W.—House-Physician. Board, lodging, and attendance. Two House-Surgeons. Board, lodging and attendance.

Births, Marriages, and Deaths.

BIRTHS.

BARLOW.—On the 4th inst., at Wimpole-street, the wife of Thos. Barlow, M.D., F.R.C.P., of a daughter.

DAVIS.—On the 9th inst., at West Hartlepool, Durham, the wife of E. H. Davis, M.R.C.S., L.S.A., of a daughter.

EMBLETON.—On the 4th inst., at St. Wilfrid's, Bournemouth, the wife of Dennis C. Embleton, M.R.C.S., L.R.C.P.Lond., of a son.

GOULD.—On the 6th inst., at Queen Anne-street, W., the wife of A. Pearce Gould, M.S., of a son.

GRIFFITHS.—On Jan. 29th, at Blayney, N. S. Wales, the wife of Ernest E. Griffiths, L.R.C.P.Ed., M.R.C.S. Eng., Government Medical Officer, of a son.

JONES.—On the 7th inst., at Chesham-place, the wife of T. Ridge Jones, M.D., of a son.

LANKESTER.—On the 5th inst., at Elm-park-gardens, South Kensington, S.W., the wife of Herbert Lankester, M.D.Lond., of a daughter.

MARRIAGES.

ADAMS—KINCHIN.—On the 5th inst., at Emmanuel Church, Clifton, James Alexander Adams, M.D.Glas., to Agnes Mortimer, only daughter of the late John Coster Kinchin, of Clifton.

KIRBY—COLLISTER.—On the 30th ult., at St. George's, Hanover-square, Albert Edward Kirby, M.R.C.S., to Marian, fourth daughter of W. Collister, Esq., of Liverpool, and relict of the late James Flinn.

ROBINSON—GOLDFINCH.—On the 27th ult., at St. Mary Abbott, Kensington, George Strickland Robinson, M.R.C.S., to Lavinia Maria, youngest daughter of Edwin Goldfinch, Esq.

TAIT—BATTEN.—On the 10th inst., at St. Mary Abbott, Kensington, Henry Brewer Tait, F.R.C.S., to Beatrice Bread, second daughter of John Winterbotham Batten, of the Inner Temple and Airlie-gardens, Campden-hill.

DEATHS.

ATWELL.—On the 10th inst., at Portland-road, Stoke, Gregory Haines Atwell, L.R.C.P., late of Altrincham, Cheshire.

BANNISTER.—On the 8th inst., at Tottenham, John Henry Bannister, M.R.C.S., L.S.A., late of Keppel-street, Russell-square.

BURGES.—On the 4th inst., at Fethard, co. Tipperary, Francis Carleton Burges, L.R.C.S.I., aged 72.

LOWES.—On the 25th ult., at his residence, Lexham-gardens, Kensington, W., and formerly of Anglesey, Hants, Frederick John Lowes, M.D.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

Medical Diary for the ensuing Week.

Monday, May 16.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 3 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.
SOCIETY OF ARTS.—8 P.M. Mr. J. M. Thomson: The Chemistry of Substances taking part in Putrefaction and Antisepsis.

Tuesday, May 17.

GUY'S HOSPITAL.—Operations, 1.30 P.M. and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 1.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M.
ROYAL INSTITUTION.—3 P.M. Professor Victor Horsley: The Modern Physiology of the Brain and its Relation to the Mind.
SOCIETY OF ARTS.—8 P.M. Sir Augustus Adderley: The West Indies at the Colonial and Indian Exhibition.
PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Payne: Multiple Neuro-fibromata in connexion with Molluscum Fibrosum.—Mr. R. W. Parker: Cases of Sarcoma in Children.—Mr. L. Hudson: Sarcoma of Pelvic Fascia.—Dr. Handford: Cerebral Hæmorrhage in a Child following Thrombosis of Sinuses.—Dr. Charlewood Turner: Fibrous Contraction with Stenosis of Stomach.—Mr. F. W. Clark: Subpleural Lipoma of Diaphragm.—Mr. Bland Sutton: A Curious Effect of Rickets on the Skulls of Lions.—Mr. S. Paget: Supra-pubic Abscess.—Mr. Shattock and Mr. Ballance: Cultivation Experiments with New Growths and Healthy Living Tissues and the Parasitic Theory of Cancer.—Mr. Battle: Bones from Congenital Syphilis. Card Specimens: Mr. Page (for Mr. Raven): Sarcoma of Dorsal Vertebræ.—Mr. S. Jones: Tumour of Parotid of Twenty-five Years' Growth.—Dr. Barlow: Renal Sarcoma.—Dr. Pitt: Pleura Two Years after Drainage for Empyema.—Dr. W. Collier: Pelvic Sarcoma Simulating Hæmatocele during Life.—Dr. Turner: Bladder Kidney and Dura Mater from a case of Purpura.—Mr. J. Morgan: Cystic Disease of Metatarsal Bone.—Mr. Fenwick: (1) Encephaloid Cancer of Apex of Bladder; (2) Acute Tuberculosis of Bladder and Prostate; (3) Purpura Hæmorrhagica of Bladder.—Mr. Bull (for Mr. Rouse): Sarcoma of Clavicle.—Mr. Mansell Moullin: (1) Abscess of Brain following Disease of Ear, trephined: (2) Sacculated Bladder with Calculus fixed behind the Prostate.—Mr. Poland: Osteo-myelitis of Scapula and Separation of its Coracoid Epiphysis.—Dr. Gulliver: Aortic Aneurysm opening into Superior Cava.

Wednesday, May 18.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M. Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9 A.M. Saturday, same hour.
SOCIETY OF ARTS.—8 P.M. Mr. William Henry Preece: Progress in Telegraphy.

Thursday, May 19.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ROYAL INSTITUTION.—3 P.M. Professor Dewar: The Chemistry of the Organic World.
PARKES MUSEUM OF HYGIENE.—5 P.M. Major Lamorock Flower, C.B.: The River Lee.
HARVEIAN SOCIETY OF LONDON.—8.30 P.M. Clinical Evening.

Friday, May 20.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
SOCIETY OF MEDICAL OFFICERS OF HEALTH.—7.30 P.M. Dr. Alfred Hill (President): On an Improved System of Flush-closets for small House Property.—Dr. B. A. Whitelegge: The Powers and Responsibilities of Local Authorities in regard to Rabies.—Mr. Shirley F. Murphy: A few Facts concerning the Recent Prevalence of Winter Diarrhœa in London.
ROYAL INSTITUTION.—9 P.M. Mr. Benjamin Baker: Bridging the Firth of Forth.

Saturday, May 21.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. John W. Hales: Victorian literature.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, May 12th, 1887.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
May 6	29·80	E.	47	45	...	52	44	....	Overcast
,, 7	30·17	N.	49	45	99	65	45	·18	Cloudy
,, 8	30·43	N.	64	55	105	73	48	....	Fine
,, 9	30·40	W.	55	51	107	70	50	....	Overcast
,, 10	30·39	N.	56	49	105	69	48	....	Fine
,, 11	30·26	N.W.	55	50	79	60	50	....	Cloudy
,, 12	30·11	N.	56	53	....	....	53	·02	Cloudy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

THE PENGE CASE.

DR. L. FORBES WINSLOW writes to remind us that at the time when the petition respecting the convicts in what was known as the "Penge Mystery" was first sent in, previously to the commutation of the sentence of death, he also obtained and sent a petition signed by 500 members of the profession. Dr. Winslow desires that all those who signed his petition should now sign the one alluded to in our last issue by Dr. Bristowe.

Students.—Nothing is yet decided by the Council as to the recognition of American or foreign diplomas.

SERIOUS RESULT FROM UNINTENTIONAL INTRA-UTERINE MEDICATION.

To the Editors of THE LANCET.

SIRS,—Having read your account of the fatal result of intra-uterine medication related by Dr. Otto Engstrom, I thought perhaps a short account of a case which has just happened in my own practice might be interesting.

On March 8th I attended a lady with her first child. About the third day, the discharge being offensive and the temperature elevated, I ordered injection of Condy's fluid and gave quinine. In a few days the temperature and discharge were normal. Ten days after this I was suddenly called at 10 P.M., and found the patient almost in a state of collapse. Violent and incessant vomiting and diarrhœa. Temperature 102·6°. The following was her statement:—For the sake of comfort she had continued using the syringe at night; but on this occasion when she introduced the vaginal tube she experienced intense pain, which was increased by the injection. Shortly afterwards her condition became so alarming that I was summoned in haste. I found on examination the os somewhat patent and the uterus abnormally low. The injection was deeply coloured with ordinary blood. On the following day the sickness had abated; temperature 102°; no abdominal tenderness, but intense pain in the back, which lasted for two days. The uterus was tender on examination per vaginam. Two days after the temperature rose to 104·4°, with rigors and vomiting. The patient was almost pulseless, and apparently in a dying state. My friend, Dr. Moon, saw her with me at 11 A.M. Still no pain, the back pain having left. On the following day the temperature sank to 103°, the rigors had ceased, and only a feeling of nausea remained. The next day the temperature sank another degree, and the patient complained for the first time of pain in the left groin as far as the left ovary. The pain remained severe for two days; but the temperature sank gradually to normal, the patient improving daily. She is now (April 25th) able to change her room, eating well, but feeling and looking extremely weak. The treatment consisted mainly in the exhibition of quinine, opiates, and soothing applications when necessary.

I am, Sirs, yours truly,

West Norwood, S.E., April 25th, 1887. JOHN B. HARRIS, M.D.

LANGMORE DEFENCE FUND.

A SUM of about £90 is still required to settle the heavy bill of costs for legal expenses incurred by Dr. J. Wreford Langmore for his defence in the recent action unjustly brought against him, which he, indeed, gained completely, but the expense of which, in consequence of the bankruptcy of the plaintiff, falls upon Dr. Langmore. The committee in charge of the fund desire to close it soon, and will therefore thank all gentlemen wishing to subscribe to send their donations at once to Mr. George Eastes, M.B., 60, Connaught-street, Hyde Park-square, London, W.

Subscriptions announced	£136	16	0	Dr. C. Ransford	£1	1	0
A Friend	3	0	0	Dr. C. Royston	1	1	0
Dr. C. T. Aveling ...	1	1	0	Mr. T. C. White	1	1	0
Mr. A. E. Cumberbatch	1	1	0	A Friend	1	0	0
Mr. J. H. Drew	1	1	0	A Friend	1	0	0
Mr. H. C. Lawrence ...	1	1	0	Mr. A. H. W. Ayling ...	0	10	6
Dr. Isambard Owen ...	1	1	0	Mr. Bayley Owen ...	0	10	6

THE DISPOSAL OF LONDON SEWAGE.

To the Editors of THE LANCET.

SIRS,—In your issue of April 30th there is a most valuable note relating to the proposed disposal of the sewage of the Thames district and of the Lea district at Barking Creek and Crossness. Sir Joseph Bazalgette, the engineer of the London Board of Works, seems to be quite satisfied with the present plan of the Board, which treats the sewage at these outfalls with chemicals in two underground reservoirs of about nine acres in extent at Barking, and of about the same extent at Crossness. The extension of the Barking reservoirs will, I hear, make the whole extent at that spot of underground reservoirs about twenty acres; and, what with chemicals and steamers to convey the chalk and iron salts and mineral constituents of the sludge down the river Thames, it is calculated that the interest of ten millions sterling will have to be annually met by the ratepayers of the metropolis. All this, too, will be totally useless, and will certainly have to be undone in a few years. Meanwhile, Paris, which took lessons from English sewage farms, and Berlin, which did the same, are both in possession of splendid sewage farms at Gennevilliers and round about Berlin. The latter city has purchased no less than 19,000 acres of land, and is thoroughly content with her experiment. All who understand the question will agree that the only real way of treating sewage with effect is the physiological plan of passing it through suitable soils, and allowing the organisms contained in all pervious soils to split up the urea into ammonia, the food for plants. If London sewage were conveyed, as proposed by Col. Jones and Mr. B. Denton, down below Tilbury, and then pumped up on the lands of Essex, enormous amounts of rye grass and roots might be raised, and the Thames thoroughly purified.

I am, Sirs, your obedient servant,

London, May 3rd, 1887. C. R. DRYSDALE, M.D.

PROFESSIONAL ATTENDANCE ON SCHOOL BOYS.

H. B. W.—The rate of remuneration for professional attendance on boys at school varies very much in the same degree as attendance on the different grades of society. At Winchester the medical officers, two in number, are paid at the rate of two guineas per head. At Rugby the medical officer, who has sole charge of the school, is remunerated at the rate of about a guinea and a half per head. At Wellington College, Charter-house, and some other schools of the same class, the medical attendant receives one guinea for each boy. At Eton the older system prevails of remunerating the medical attendant after the manner of family practice. Each house-master selects his own medical attendant, whose remuneration is on a scale similar to that in family practice. The same rule is observed at the majority of grammar schools, as well as at most private boys' schools and girls' schools. The fee varies with the class of school—from five to seven shillings a visit. It would be better for all schools to follow the example of the higher grade public schools, and pay a sum per head for medical attendance, either inclusive or exclusive of necessary medicines. It occasionally falls very hard on parents who are struggling to give their children the best education their means will afford to have to meet a heavy doctor's bill as an extra to the school charges, whereas a guinea a year divided into three payments of seven shillings each school term would be an easy matter. Medical men would, as a rule, be found willing to attend schools at this rate where masters and parents were not needlessly exacting, which, as a rule, they would not be.

Mr. Thomas Lafan is referred to an article in our present issue.

Mytton.—No.

DR. RICHARDSON'S ELECTION FUND.

To the Editors of THE LANCET.

SIRS,—May I ask you kindly to inform your readers that the above fund was closed on April 23rd, and the audit published. I have since received two subscriptions (one to-day), which I have returned with a note of explanation; but as this involves trouble your insertion of this letter will oblige.—I remain, Sirs, yours truly,

FREDK. H. ALDERSON, M.D., Hon. Treasurer.

Hammersmith, May 6th, 1887.

SUICIDE IN ANCIENT ROME.

THIS sombre, though fascinating, theme has usually been handled as if a series of anecdotes of celebrated suicides sufficed to exhaust its interest; but Dr. Iginio Gentile of Milan, in an able memoir recently read before the Circolo Filologico of that city, adopts the more scientific method of treating it in relation to the notions of death, as these have been developed and embodied in the various philosophic systems. Aristippus of Cyrene proclaimed the nullity of existence, and sought to deprive death of its traditional horrors; and Hegesias, by persuading the Greeks that the sum of pain exceeds the sum of pleasure, caused so many to destroy themselves that his "prælections" were prohibited. Epicurus, shrinking from absolute pessimism, maintained that the dread was as culpable as the desire of death, which, by itself being neither a good nor an evil, might yet become, according to circumstances, either the one or the other. The next step in the evolution of the notion of death was that of the Stoics represented by Zeno, who placed the chief good in the pure repose of the reason, and limited himself to considering death as a necessary evil, and suicide as a rational mode of exit. These notions in the march of historical development penetrating the Roman mind, so averse to philosophical speculation, formed part of the groundwork of morals; and, in spite of the protest of the older citizens, who hated this intrusion of Greek subtleties, suicide received its sanction in the Latin "mori licet cui vivere non placet" (he is at liberty to die who does not like to live); so that self-destruction became common in the last years of the Roman Republic and in the first of the Empire—a period prolific in social and political perturbations. When the Empire reached its culmination, while there were development and vigour in the provinces, there were corruption and decay in the City, where the new condition of things supplied new incentives to suicide, and voluntary death, refined into a philosophy, became the crown of the career of the Roman voluptuary. It was in the upper classes, the old Republican oligarchs, become effete under the Empire, that this notion prevailed; but in the lower strata of society, in the suffering masses, germinated the mystic idealism that prepared the victory for advancing Christianity. Epictetus and Marcus Aurelius represented the last phase of philosophy which sanctioned voluntary death in a mitigated form, while the "acta urbis" (the daily journals) registered suicides every twenty-four hours. At last came the message of salvation, the new faith which preached the comforting doctrine of man's duty to live. Dr. Gentile's paper, highly interesting to its Milanese audience, may prove not less so to a yet wider public.

THE HONOURS REGULATIONS AT THE LONDON UNIVERSITY.

To the Editors of THE LANCET.

SIRS,—As an intending candidate for the 1st M.B. of London, might I be allowed to express a student's views on the recent honours regulations? I quite understand the reason of them—viz., to prevent every man who obtains a pass trying for honours in every subject on "spec," which I believe used to be a favourite amusement. This certainly ought to be stopped, as it simply meant extra and unnecessary trouble to the examiner. But the regulations do more than that; they prevent men trying for honours, and tempt men to read for the lower standard. Could not this be obviated by the following method? Make each candidate take the pass in each subject, and then if he obtains a sufficient percentage in any subject, let him have the option of trying for honours in that subject. The same regulations might also apply to the preliminary scientific. This method would effect a weeding out, and thereby enable the honours papers to contain purely honours questions—raising the standard. As it is, failure to obtain honours means possibly a recommendation for a pass, possibly failure. This would entail a heavy loss of time and money, that in most cases can be ill afforded, whilst at the same time there would be the irritation of feeling that one might not have failed if one had been more modest, whence would come the obvious moral—Don't read for honours again. Enclosing my card,

I am, Sirs, yours obediently,

May 9th, 1887. X. Y. Z.

REGULATION OF MINIMUM FEES.

Mr. Albert S. Morton complains severely of the low fees charged by some medical men, and of the system at Guy's and other hospitals of charging out-patients a small pittance, and taking, and even advertising for, in-patients at a guinea a week. Unless cases are carefully selected, such conditions might easily operate injuriously on patients and on the profession. But it is of little use to expect the Medical Council to regulate fees. Its business is to regulate medical education. Medical men themselves, and amongst themselves, must regulate fees; and the sooner it is understood that there is no power in any existing body or authority to fix fees or prescribe scales of charges the better. Our correspondent encloses a small circular advertising a cheap medical practitioner (M.D. St. Andrews and M.R.C.S. Eng.). He should forward this circular to the bodies from whom the gentleman in question holds his diplomas.

Student should write to the Secretary of the College.

HUTTON FUND.

THE secretary of the committee of the above fund requests the insertion of the following list of subscriptions, and hopes that this may be added to, so as to create a lasting provision for those who have so great claim on the profession as the widow and daughters of Dr. Hutton.

Second List.

Amount acknowledged	£436	17	0
Mrs. C. La Motte	50	0	0
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Mrs. Lloyd	£5	0	0
Mrs. Keyser	5	0	0
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Dr. Sinclair Thomson	1	1	0
Mrs. Owen Jones	1	1	0
Dr. Waggett	1	1	0
Dr. de Havilland Hall	1	1	0
The Rev. Frederick Cox	1	1	0
F. H. Stewart, Esq.	1	0	0
K.	0	10	6
E. J.	0	10	0
Total	£974	4	6

Mr. L. Houghton.—To the Secretary of the St. John Ambulance Association, St. John's Gate, Clerkenwell.

Dr. James Weaver.—One case is hardly sufficient to prove our correspondent's contention.

L.R.C.P., L.R.C.S.—St. Thomas's amongst others.

ERRATUM.—In Mr. Sessions Barrett's letter in our last issue, page 966, for "fifty hours" read *thirty* hours.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Haslam, Birmingham; Dr. Goodhart, London; Dr. Heron, London; Mr. F. Treves, London; Dr. Jas. Braithwaite, Leeds; Mr. Mackenzie Booth, Aberdeen; Dr. Dickinson, London; Dr. Steavenson, London; Dr. W. Wilson, Florence; Professor Humphry, Cambridge; Dr. Percy Boulton, London; Dr. W. Nicholson, Greenwich; Mr. Saxon Snell, London; Dr. Saunders, Exeter; Dr. W. Pearce, London; Messrs. Whitelegge and Pryce, Nottingham; Mr. A. B. Hind, St. Helier's; Mr. Alfred Haviland, Douglas, Isle of Man; Mr. Hovell; Messrs. Krohne and Sesemann, London; Mr. J. R. Williamson, Manchester; Mr. John A. Brown, Douglas, Isle of Man; Dr. Henry, London; Mr. Spencer Watson, London; Dr. Sadler, Barnsley; Mr. G. R. Nelson, Bridlington Quay; Dr. M'Clure, Cromer; Dr. Ris, Zurich; Dr. Camera, New York; Mr. W. Odell, Hertford; Mr. Goodall, Kenmare; Mr. Teague, Manchester; Mr. F. W. Clark, Croydon; Mr. Hearne; Messrs. Smith and Son, Weston-super-Mare; Mr. Knight, Dublin; Messrs. Christy and Co., London; Mr. C. J. Johnson, Chicago; Messrs. Maclachlan and Co., Edinburgh; Mr. Symes, Chesterfield; Messrs. Wright and Co., Birmingham; Dr. D. M. Sergeant, London; Messrs. Trübner and Co., London; Dr. Whipham, London; Dr. Shoemaker, Philadelphia; Mr. R. W. Walsh, London; Mr. Strugnell, London; Dr. Thurstan, Southborough; Mr. J. E. D. Douglas, Bournemouth; Messrs. Peebles and Son, London; Mr. C. B. Lockwood, London; Mr. Fitzroy Benham; Dr. F. H. Alderson, London; Mr. Benthall, Southsea; Mr. Townsend, Exeter; Mr. Lewis, London; Mr. Masson, Paris; Mr. Oliver, Manchester; Mr. Botwood, Ipswich; Mr. Lawley, London; Mr. Birchall, Liverpool; Miss Townson, Chester; Mr. Corry, Manchester; Mr. G. Mason, London; Mr. Armstrong, Manchester; Mr. Gilchrist, Liverpool; Dr. Sunderland; Mr. Emerson, Sondershauser; Mr. Christmas, Hemel Hempstead; Mr. Jones, Llanfairfechan; Mr. Morris, Chester; Mr. C. T. Dent, London; Mr. R. W. H. MacIvor; Dr. M. Handfield Jones, London; Dr. Thos. Oliver, Newcastle-on-Tyne; Dr. Sinclair Thomson, London; Mr. Mansell Moullin, London; Messrs. Kegan Paul and Co., London; Dr. P. Hood, London; Mr. Lyttle, Maida Vale; Dr. W. Duncan, London; Mr. W. North, London; Mr. Lynd, London; Dr. R. G. Alexander, Halifax; Dr. Pasteur, London; Mr. C. Simpson, Beechwood; Dr. H. W. Jones, Chicago; Mr. H. H. Clutton, London; Mrs. Howlett, Westgate-on-Sea; Mrs. Wigg; Mr. Juler, London; Miss Munster, Surbiton; Dr. Jones, Poole; Miss Goodwin, Chesterfield; Messrs. Isaacs and Co., London; Mr. R. W. Lloyd, London; Messrs. Lumleys, London; Mr. F. R. Humphreys, London; Mr. C. J. Green, Preston; Mr. B. H. Mumby, Portsmouth; F.L.S.; Studens; Medulla; Country Doctor; X. Y. Z.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Bower, Bedford; Mr. Lloyd, London; Mr. Aston, Barnetty; Messrs. Cowan and Co., Perth; Mr. Bennett, Dublin; Mr. Thompson; Messrs. Read and Co., Bristol; Mr. Atkinson, Halifax; Mr. R. A. Lester, South Molton; Mr. Poole, Shrewsbury; Mr. Hugo, Reading; Messrs. Savory and Moore, London; Mr. Oldham, Macclesfield; Dr. Anderson, Ebbw Vale; Dr. Smith, Kinnetty; Mr. Fox, Birmingham; Messrs. Davidson and Co., Glasgow; Mr. Craske, Kentish-town; Messrs. Macmillan and Co., London; Miss Yates, Bridgnorth; Mr. Hosegood; Messrs. Beal and Son, Brighton; Mr. Miller, Chelsea; Mr. Nunn, London; Mr. Fuge, Taunton; Miss Jones, Blaenavon; Dr. Branson; Dr. Duggan, Castle Eden; Mr. Maskew, Fawley; Mr. Bennett, London; Messrs. B. Smith and Co., London; Mr. Garrard, Rotherham; Mrs. Wimpress, West Worthing; Mr. Andrew, Stockport; Dr. Cochrane; Mr. Thurnam, Highgate; Mr. Webster, Darlington; Mr. Unsworth, Liverpool; Mr. Hume, Edinburgh; Mr. Kneebone, Bedford; Dr. Dickson, Wye House; Mr. Affleck, Manchester; Mr. Lupton, Bramley; Dr. Slade King, Ilfracombe; Mr. Cartmal; Mr. Rowe, Manchester; Miss Clark, Burton-on-Trent; Mr. Edmonds, Kilburn; Mr. Blenkarne, Leicester; Mr. Griffiths, Blaney; Mr. Larmuth, Manchester; Dr. Murchison, Salem; Mr. Paterson, Leeds; Mr. Williams, Arundel; Mr. Mackay, Bury; Mr. Davenport, London; Mr. Mainwaring, London; Mr. Locke, Kingsland; Matron, Newark; M.D., Swanage; Medicus, Dalston; A. B. C., Harrogate; H. A. C., Bridgwater; Surgeon-Major, Upper Norwood; L. N. T.; Strophanthus; R. C. S.; O. P.; W.; Lady Superintendent, Leeds; B., Poplar; J. A. E. P.; S., Barnes; H. L., Pendlebury; Delta, Sutton; Secretary, Bristol; L. B.; C. C., New Cross; Permanency, Burton-on-Trent; B., Bradford; M.D., Walton-on-Thames; Tutor; Dispensary, Horsham; J. K., Hastings.

Cork Examiner, Freeman's Journal, Georgetown (British Guiana) Royal Gazette, Saint Christopher Advertiser, Manchester Guardian, &c., have been received.

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An entire Page	5	5	0

The Publisher cannot hold himself responsible for the return of testimonials, &c., sent to the office in reply to advertisements; copies only should be forwarded.

NOTICE.—Advertisers are requested to observe that it is contrary to the Postal Regulations to receive at Post-offices letters addressed to initials only.

An original and novel feature of "THE LANCET General Advertiser" is a special Index to Advertisements on page 2, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to Advertisements appearing in THE LANCET.

Terms for Serial Insertions may be obtained of the Publisher, to whom all letters relating to Advertisements or Subscriptions should be addressed.

Advertisements are now received at all Messrs. W. H. Smith and Son's Railway Bookstalls throughout the United Kingdom and all other Advertising Agents.

Agent for the Advertising Department in France—J. ASTIER, 66, Rue Caumartin, Paris.